

# Monthly Labor Review

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JULY 1951 VOL. 73 NO.

1

## **New Housing Trends in 1949-51**

**Purchasers' Incomes and New-Home Financing**

**Family Income and New Rental Housing**

**Features and Costs of New 1-Family Houses**

## **Expansion of Aircraft Industry Employment**

**The Growth of State and Local Governments**

**UNITED STATES DEPARTMENT OF LABOR**

**Maurice J. Tobin, *Secretary***

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**BUREAU OF LABOR STATISTICS**



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# Monthly Labor Review

UNITED STATES DEPARTMENT OF LABOR • BUREAU OF LABOR STATISTICS

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## This Issue in Brief . . .

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ASIDE FROM CENSUS DATA, most of our detailed information on what kind of homes people live in and how much they have to pay for them comes from special studies done in particular communities by local, State, or Federal authorities. BLS has recently completed some rather searching investigations into the characteristics of new rented and owner-occupied dwelling places. The findings have been correlated with the income of the people living in them. **NEW HOUSING—TRENDS IN 1949-51** (p. 1) is in three parts.

The first deals with the relationship of sales prices and methods of financing 1-family houses to the income of purchasers in 15 large city areas. About 6 out of every 10 new homes priced at under \$15,000 were bought by people making between \$3,000 and \$5,000 a year. In this income group the houses ran between \$9,000 and \$10,000 in cost. (Of course, there was considerable variation from city to city.) All but about 10 percent of the homes studied were mortgaged. One of the most interesting revelations was the ratio of mortgage to income. In the \$2,000 to \$3,000 class, mortgages were equal to about 3 times income. The ratio gradually decreased to about 1 percent for the \$7,500 to \$10,000 group. Mortgage payments were even more revealing of the financial burden of home buying: Out of every income dollar they took 22 cents for the lower compared with 10 cents for the higher income buyer. The average first mortgage ran for 22 years at 4.5 percent and covered a loan of \$7,800.

Another article turns to the renter of new housing and covers 14 of the 15 cities surveyed for home ownership. Rents came relatively high. The average renter paid \$93 a month. Most of the renting, naturally, was done by small families in the middle and high-income brackets. The middle-income renters spent about a fourth and high-income tenants a fifth of total income for their living quarters. Three- and four-room units were occupied by 70 percent of all renters.

The third answers a question arising naturally from the first: What kind of houses are being

bought? The time periods covered for these studies in 6 of the 15 metropolitan areas include the last half of 1949, the middle half of 1950, and the first quarter of 1951. In the latter two periods, larger and costlier houses become more important in the total volume of one-family housing. For example, the proportion with 1,000 square feet or more of floor space increased from 38 to 59 percent, while the number of homes with multiple baths increased from 14 to 23 percent of all homes.

The extraordinary volume of new housing made available since the end of the war has, depending on concentration and location, had its effect on State and local government: New communities mean new schools, roads, sanitation systems, inspection services. **STATE AND LOCAL GOVERNMENTS, 1909 TO 1948** (p. 20) shows how governmental employment in these jurisdictions has expanded and how important the employment and payrolls of non-Federal public employees have become in the national economy. A few examples: Employees in State governments per 10,000 population rose from 17 to 56; in local governments, from 126 to 184. The corresponding payroll ratios are from \$2.03 to \$8.60 and from \$11.38 to \$28.22.

Some of the community expansion which expresses itself in new housing development and increased public service employment is due to the growth and to some extent the geographic concentration of new industries in certain areas. Aircraft is an example, and **EXPANSION OF EMPLOYMENT IN THE AIRCRAFT INDUSTRY** (p. 15) is a good case in point. Half the industry is concentrated on the West Coast, but Texas, Kansas, and New York have substantial shares. Warplane orders will create employment gains in Tennessee, Georgia, Oklahoma, and Michigan. Total employment in airframes is expected to be over the half million mark by late 1952.

In the defense preparation and industrial expansion of the democratic nations in either hemisphere, the productive potential of Australia is of obvious importance. **AUSTRALIA'S LABOR PROBLEMS AND POLICIES, 1951** (p. 26) points to these facts: The country's industry has expanded to the limits of its present labor force and its present work habits. Further expansion must lean upon immigration, higher productivity, and improved industrial relations.



# The Labor Month in Review

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ON THE EVE of expiration of the Defense Production Act, Congress enacted a month's extension of economic controls. With inflationary pressures appearing less immediate and indications of an approaching end to fighting in Korea, Congress limited controls included in the extended DPA; further price roll-backs, for instance, were banned, despite pleas from administration leaders and officials of organized labor that authority to lower prices be continued.

## Labor Supports Economic Controls

Each of the segments of organized labor composing the United Labor Policy Committee supported the ULPC program before Congressional committees, in the press, and on the radio.

CIO vice president Rieve stated that organized labor could not accept wage stabilization if strong rent and price controls are not part of the new legislation. The CIO called 250 of its top leaders to Washington to press for adequate price controls and advanced an 8-point program for strengthening the DPA to meet anticipated renewal of inflationary pressures.

Besides supporting administration anti-inflation proposals, AFL President William Green suggested that the Treasury abandon Series E Bonds and issue bonds bearing 3.5 percent interest to make investment in Government securities more attractive to wage earners. Leaders of the AFL Machinists, representing the largest group of organized workers in the aircraft industry, urged more housing near production centers.

After meeting on July 9, the ULPC declared: "We cannot have an effective defense production program without an effective stabilization program." On the next day, 10 ULPC leaders and President Truman mapped plans to secure enactment of an adequate DPA.

## Wage Stabilization Developments

The Wage Stabilization Board, while waiting for passage of new legislation defining its future functions, ruled on certain important applications for wage adjustments beyond the 10 percent catch-up formula and set up its administrative machinery, including 14 regional offices.

Approval was given to a 15-percent wage increase for shipyard workers; the decision was granted because of a "base period inequity," since the industry has been depressed during the past few years and no wage advances had been granted during the last 2 years. A substantial wage increase was recognized as essential to attract and hold workers in the shipyards.

An over-10-percent wage increase was granted by Republic Aviation Corp. in order to attract workers. A 9-cent an hour increase was approved for General Electric Co. employees who are members of United Electrical Workers (Ind.), to preserve a tandem relationship with the IUE-CIO. A special panel of the WSB approved a 2-cent additional wage adjustment for packing-house workers to maintain occupational differentials.

During the month several special panels were created by WSB. In cooperation with Secretary of Labor Maurice J. Tobin, a tripartite Construction Panel was established. A second panel was named to study wage relationship in the aircraft industry, and still another for railways and air transport.

Throughout the month a special panel considered the status of wage stabilization in industries whose products are not subject to price regulations. The three-man salary stabilization board was expanded to five, to handle problems of wage adjustment for persons not covered by the Wage-Hour Law. To secure compliance with rulings of the WSB, an enforcement panel was developed.

## Labor and International Affairs

Labor attention turned during the month to international matters. A delegation of 30 American unionists, headed by Matthew Wol', AFL vice president, Jacob S. Potofsky, CIO vice president, and William Mitch, president, District 20, United Mine Workers, took an active part in the second world congress of the International Confederation



of Free Trade Unions at Milan, Italy. They heard reports of successes in consolidating democratic unionism throughout the free world since the formation of ICFTU in 1949, made plans for strengthening union efforts against both Communist and Fascist totalitarianism, promised further aid to underground labor activity in the totalitarian nations, and planned for the development of regional centers of the organization.

The CIO for the first time, joined the AFL as participants in the International Labor Organization which held its annual meeting at Geneva. Strong labor support was given to conventions establishing machinery to obtain minimum wages for farm workers, and providing equal pay for men and women for work of equal value.

The Republic of Mexico canceled its migratory labor agreement with the United States and ordered all her migrant farm workers home as their work contracts expired. Both AFL president Green and CIO president Murray urged President Truman to veto the Mexican labor importation bill passed on June 30.

#### **Transport and Communications Stoppages**

A series of labor disputes drew public attention to labor relations in transportation and communications. In almost every case, wages were the chief cause of break-downs of negotiations; in every case, regulatory bodies set or approve prices which may be charged by the operators of these services.

In Detroit, a 59-day strike of public transport workers ended with important issues being sent to mediation. A 3-day stoppage halted busses and streetcars in Washington, D. C., while suburban bus service was also stopped in Chattanooga, Nashville, and Knoxville, Tenn.

Operations of United Air Lines halted for 11 days when 900 pilots demanded that their salaries be calculated on a mileage rather than an hourly basis in recognition of increased productivity resulting from adoption of larger and faster planes by the company.

American shipping on 3 coasts was halted by interlocking strikes of 3 CIO affiliates, the National Maritime Union, the American Radio Association, and the Marine Engineers Beneficial Association. Some 110 ships were tied up by the strikes, the last of which ended June 26. A strike

of ferryboatmen at Norfolk, Va., caused appeals for court action under State antistrike legislation.

On the West Coast, a 4-day strike of 10,000 telephone workers was settled with a 10-percent pay increase at the end of June.

#### **Economic Background**

Employment continued strong in May. While there were cutbacks in automobile and other consumer-goods lines, expansion of employment in defense industry and a seasonal upturn in construction brought employment in nonfarm establishments to an all-time high for the season, 46.1 million. Unemployment increased seasonally in June to 1.98 million.

The average workweek in factory employment declined by nearly a half hour from mid-April to mid-May, to 40.6 hours, reflecting the effects of restrictions on nondefense use of metals as well as some slackening of consumer demand. In defense industries, overtime work continued in many plants. Gross average weekly earnings of factory production workers declined 39 cents during the month to \$64.35.

The factory lay-off rate per 1,000 workers rose to 13 in May from 10 in April and 8 in March. The quit rate continued at 28 per 1,000 in May. Despite the rise in lay-offs, factory workers were hired during May at about the same rate as in the preceding 3 months, 45 per 1,000.

Expenditures for new construction in June totaled \$2,700 million, an increase of 6 percent over May. Except for commercial building, almost all types of construction expenditures increased over May. Although remaining at a high level, expenditures on private residential construction were 23 percent below June 1950.

The BLS daily price index of 28 sensitive commodities dropped 5.7 percent from June 11 to July 10, declining at a rate double that which has prevailed since reaching a peak on February 16. The BLS weekly index of 330 wholesale prices—composed of more stable items, covering the entire economy—dropped from 182.5 to 181.1 during June. However, the Consumers' Price Index for May 15 showed continuing advances in retail prices, and reached a high of 185.4 (both the adjusted and old series), bringing a 1-cent-an-hour-cost-of-living increase to a million nonoperating railway employees.



# New Housing—Trends in 1949-51

EDITOR'S NOTE: The following three articles present basic information from the Bureau of Labor Statistics' surveys of housing in metropolitan areas. Three periods—from mid-1949 through early 1951—are covered. In 1949, thousands of middle-income families, spurred by Government encouragement of liberal mortgage terms, bought relatively low-priced houses. Low-income families generally were priced out of the new house market, both on a purchase and rental basis. By early 1951, conditions had changed radically. Larger and more expensive homes were finding a ready market, but the middle-income purchaser of 2 years ago found it increasingly difficult to buy a house of any kind under the tightened mortgage regulations designed as part of a national stabilization policy.

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## Purchasers' Incomes and New-Home Financing

SOLOMON SHAPIRO\*

HOME BUILDING in metropolitan areas during the last half of 1949 was predominantly for middle-income families. The needs of many such families for inexpensive homes in 1949-50 were met in the expanding housing activity of the period.

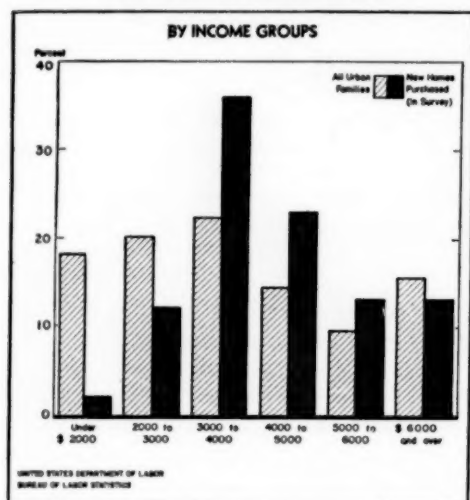
This is apparent from the housing surveys, conducted by the Bureau of Labor Statistics in 15 metropolitan areas,<sup>1</sup> which also reveal considerable regional variations in sales prices and financing. Sales prices of new houses appeared to be correlated with income levels of the purchasers, but characteristic geographic differences were generally maintained, particularly in the low- and middle-income groups.

Resumption of a high level of building activity in the second half of 1949 followed a decline starting in the spring of 1948—before the business recession became general. Removal of restrictions on higher-priced houses in mid-1947 had resulted in a rapid shift to the building of more expensive homes. In the spring of 1949, a program for "economy" houses was started by the building industry, under Government sponsorship, in order to meet the needs of middle-income families.

Enlargement of operations and the elimination of some less essential housing features, together with significantly reduced building materials prices, helped to make the program successful. Government assistance in financing homes through the Veterans Administration and the Federal Housing Administration was also an important factor. In July and again in October 1949, the Government increased the authority of the Federal National Mortgage Association to purchase home



Chart 1. Distribution of Urban Families and Proportion of New Homes Purchased, 1949



mortgages; this assured a secondary market for mortgages and contributed to their availability. In all, three-fourths of the purchases of new homes in the areas surveyed were financed under FHA and VA programs.

#### Variations Among Income Levels

About three-fifths of all home purchasers in the areas studied, were in the middle-income<sup>2</sup> groups from \$3,000 to \$4,999 (table 1). Purchasers in the \$3,000-\$3,999 income group bought over a third of the new houses. Relatively few homes were purchased by the very low-income families receiving less than \$2,000 a year and only a seventh by those with incomes below \$3,000. About another seventh were bought by purchasers in the income groups \$6,000 and over, but there was considerable regional variation in this respect.

The very large share of the new houses taken by the middle-income groups is strikingly shown in chart 1.<sup>3</sup> This does not indicate the extent to

TABLE 1.—Average purchase price and distribution of new houses completed July-December 1949, 15 metropolitan areas by income group of purchaser

Income group of purchaser	All 15 areas	Atlanta	Boston	Chicago	Cleveland	Dallas	Denver	Detroit	Los Angeles	Miami	New York	Philadelphia	Pittsburgh	San Francisco	Seattle	Washington
All new houses purchased: Number.....	77,710	1,750	1,290	5,700	2,640	2,795	1,715	11,225	15,140	3,040	16,340	5,245	1,705	4,480	860	3,780
Percent of all houses sold																
All income groups <sup>1</sup> :	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Under \$2,000.....	2	5	3	(1)	2	1	3	1	3	(1)	0	1	1	2	(1)	4
\$2,000-\$2,999.....	12	26	20	4	7	24	17	11	16	14	9	14	18	5	12	22
\$3,000-\$3,999.....	36	36	30	31	32	32	39	45	42	34	31	42	29	33	35	35
\$4,000-\$4,999.....	23	13	13	31	24	18	19	24	20	26	24	20	24	26	27	30
\$5,000-\$5,999.....	13	13	9	15	12	10	13	12	11	14	14	12	14	14	10	19
\$6,000-\$7,499.....	6	5	5	10	10	8	5	3	2	8	6	4	2	8	5	15
\$7,500-\$9,999.....	3	(1)	5	6	7	3	2	(1)	2	3	4	2	2	6	4	6
\$10,000 and over.....	4	(1)	3	4	2	4	2	2	4	2	7	3	(1)	3	5	2
Average purchase price																
All income groups.....	\$10,905	\$5,645	\$11,100	\$13,160	\$14,595	\$9,300	\$10,055	\$9,680	\$9,820	\$8,160	\$11,670	\$10,450	\$11,570	\$12,005	\$11,900	\$13,160
Under \$2,000.....	9,525	5,055	9,030	(1)	10,730	3,390	9,430	7,685	10,505	(1)	(1)	6,480	11,250	10,455	(1)	(1)
\$2,000-\$2,999.....	8,560	6,790	9,060	11,720	12,400	6,470	9,140	7,855	8,765	6,245	8,615	8,940	10,725	9,390	8,560	11,965
\$3,000-\$3,999.....	9,240	8,135	9,850	10,980	12,085	6,875	9,125	8,900	8,625	6,745	9,490	9,410	11,080	10,155	9,430	10,890
\$4,000-\$4,999.....	10,570	9,300	10,750	11,890	14,340	9,535	9,940	9,920	9,625	8,045	10,490	10,625	10,645	11,455	11,575	12,090
\$5,000-\$5,999.....	12,115	10,620	12,020	12,820	15,555	11,210	11,210	11,450	10,915	9,670	12,770	11,100	13,815	12,670	15,295	13,660
\$6,000-\$7,499.....	13,935	14,845	14,210	16,250	17,455	14,380	12,395	10,380	12,115	10,985	12,725	13,590	13,825	17,445	14,015	14,220
\$7,500-\$9,999.....	16,385	(1)	15,730	18,325	18,635	20,300	17,060	(1)	10,515	13,670	17,700	14,800	15,375	15,715	14,805	17,860
\$10,000 and over.....	22,985	(1)	24,600	29,470	26,710	24,960	20,440	19,950	22,885	19,505	22,720	20,935	(1)	20,365	23,860	24,585

<sup>1</sup> Less than 1.0 percent for all new houses purchased in the area.

<sup>2</sup> Individual items may not add to totals because of rounding and the omission of cases for which data were incomplete.



TABLE 2.—Proportions of new houses mortgaged and of purchase price financed by mortgages, by income groups of purchasers, houses completed July to December 1949, in 15 metropolitan areas

[Purchasers' income group]	All 15 areas	Atlanta	Boston	Chicago	Cleveland	Dallas	Denver	Detroit	Los Angeles	Miami	New York	Philadelphia	Pittsburgh	San Francisco	Seattle	Washington
New houses mortgaged: Number.....	72,755	1,710	1,215	5,380	2,410	2,700	1,615	10,530	14,120	2,885	15,310	4,960	1,555	4,095	750	3,520
Percent of new houses mortgaged																
All income groups..	94	98	94	94	91	97	94	94	93	95	94	95	91	91	87	93
Under \$2,000....	66	100	100	(1)	80	82	69	(1)	70	(1)	(1)	(1)	(1)	(1)	(1)	(1)
\$2,000-\$2,999....	95	98	93	87	81	97	95	100	98	100	96	92	83	76	100	86
\$3,000-\$3,999....	97	99	95	95	95	99	99	95	98	98	99	99	96	93	95	95
\$4,000-\$4,999....	96	100	95	100	88	95	94	93	95	100	98	93	100	91	85	96
\$5,000-\$5,999....	93	89	85	87	100	98	94	94	92	83	94	95	88	95	94	94
\$6,000-\$7,499....	95	(1)	100	90	96	98	86	100	100	95	100	90	50	91	77	94
\$7,500-\$9,999....	78	(1)	100	100	76	87	58	(1)	71	75	66	85	50	77	68	90
\$10,000 and over..	70	(1)	81	63	82	54	100	80	54	(1)	82	67	(1)	88	45	57
Percent of purchase price mortgaged																
All income groups..	79	89	73	70	61	81	87	83	84	91	79	80	75	77	74	80
Under \$2,000....	63	92	65	(1)	65	77	84	(1)	67	(1)	(1)	(1)	(1)	(1)	(1)	(1)
\$2,000-\$2,999....	86	96	74	60	66	95	89	94	83	99	89	89	70	82	85	79
\$3,000-\$3,999....	87	92	80	77	65	95	92	87	91	97	88	85	78	88	86	85
\$4,000-\$4,999....	81	92	78	73	66	78	89	84	84	94	81	80	81	81	77	83
\$5,000-\$5,999....	75	89	70	67	63	77	83	74	81	89	75	77	63	73	58	78
\$6,000-\$7,499....	69	61	71	64	53	60	75	83	71	82	75	71	39	60	72	75
\$7,500-\$9,999....	68	(1)	66	64	50	65	72	(1)	79	69	76	41	73	67	85	73
\$10,000 and over..	57	(1)	34	51	50	58	73	59	51	(1)	61	66	(1)	61	29	64

(1) Less than 1.0 percent of all new houses purchased in the area.

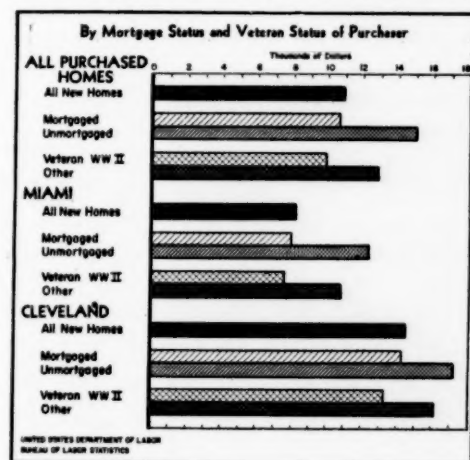
which the housing needs of the different groups have been met. The volume of existing housing units for sale or rent at prices which can be afforded is not ascertainable; lower income groups generally cannot afford to buy houses and need low rental units; and many families enjoying higher incomes were already home owners or satisfied renters at the time of the survey.

**Sales Prices.** The average price paid for new houses completed in the 15 metropolitan areas was about \$11,000. Houses purchased by the income group between \$3,000 and \$5,000 averaged less than \$10,000, compared with a little more than \$9,000 for the \$3,000-\$3,999 income group alone.

Among the different income groups and areas, prices varied from an average of about \$3,400 for the lowest incomes in Dallas to more than \$29,000 for the highest group in Chicago (table 1). Elimination of the relatively few purchasers in the extreme income groups—under \$2,000, and \$10,000 and over—reduces the variation greatly. The lowest priced homes were purchased by the income groups up to \$5,000 in the three southern cities surveyed; the most expensive homes bought by these income classes were generally in Cleveland, Washington, D. C., and Chicago.

**Financing.** Few home buyers have sufficient assets to pay full cash for their homes. In the areas surveyed, more than 90 percent of the new homes purchased were financed with some form of mortgage (table 2). The larger proportions of un-

Chart 2. Average Purchase Price of New Homes, 1949





gaged homes in most areas were bought by the upper income groups. However, some purchasers with incomes under \$2,000 appeared to be buying homes without the need for mortgages. These usually were families or individuals living on savings or income from investments, and a few business people who had sustained a temporary reduction in income.

Prices of mortgage-financed houses were well below those of houses paid for in cash. This was another reflection of the favored asset position or income level of the cash buyer (chart 2). Moreover, significant proportions of the houses built on contract—the more costly type, generally—were paid for in cash.

Initial equity in new houses tends to be greater as purchasers' incomes increase, a fact shown conversely by the percent of mortgage to purchase price in table 2. Basically, the relationship occurs because families with higher incomes buy more of the higher-priced homes and lending institutions generally require relatively larger equities as sales prices of houses increase.

*Burden of Home Buying.* In general, definite upper limits can be set on the price a buyer pays for a house, given his financial circumstances and his allocation of income. Anticipated long-term earning ability is as important as current income when homes are financed with mortgages having 15- to 30-year terms. Cash outlays for housing are often inflexible, since mortgage payments are unchanged for the duration and taxes and in-

surance are relatively stable. Moreover, repairs tend to rise with the age of the house. Initial housing costs should not be so large a part of the budget that future contingencies cannot be met.

A much more serious financial undertaking for lower than for higher income groups in buying houses is implied by the ratios shown in table 3.<sup>1</sup> A general pattern of decreasing ratios of mortgage to median income as income rises is fairly consistent for all the metropolitan areas. The variations were reduced by eliminating the relatively few purchasers in two extreme income groups—below \$2,000, and \$10,000 and over.

Among purchasers with incomes of \$2,000–\$2,999, the average mortgage was 2.9 times the median income. This ratio decreased fairly steadily as income increased, to 1.1 for the \$7,499–\$9,999 group.

Regional variation in the mortgage-income ratio was widest in the \$2,000–\$2,999 group, reflecting the differences in average purchase prices and mortgages. In the lower-income groups, the ratios were smallest in the southern areas where the homes bought were least expensive. This regional pattern is obscured in the middle and upper income groups, as the range of variation becomes narrower. It probably reflects the restrictions on mortgage amounts in relation to income for the large number of middle-income purchasers having FHA-insured or VA-guaranteed loans.

The ratio of average mortgage payments—including interest and amortization but not taxes

TABLE 3.—*Ratios of average mortgages and average annual mortgage payments to purchasers' incomes, by income groups from \$2,000 to \$9,999, mortgaged houses completed July to December 1949, 15 metropolitan areas*

Area	Ratio of total mortgage to purchasers' incomes, by income group						Ratio of annual mortgage payments to purchasers' incomes, by income group					
	\$2,000– \$2,999	\$3,000– \$3,999	\$4,000– \$4,999	\$5,000– \$5,999	\$6,000– \$6,999	\$7,500– \$9,999	\$2,000– \$2,999	\$3,000– \$3,999	\$4,000– \$4,999	\$5,000– \$5,999	\$6,000– \$6,999	\$7,500– \$9,999
All Areas.....	2.9	2.3	1.9	1.6	1.4	1.3	0.22	0.17	0.14	0.13	0.11	0.10
Atlanta.....	2.6	2.2	1.9	1.6	1.4	(1)	.22	.16	.15	.12	.14	(1)
Boston.....	2.8	2.2	1.9	1.4	1.5	1.2	.21	.17	.14	.13	.11	.09
Chicago.....	2.8	2.4	1.9	1.5	1.5	1.3	.23	.19	.15	.15	.13	.13
Cleveland.....	3.0	2.2	2.1	1.8	1.4	1.1	.26	.17	.16	.14	.13	.10
Dallas.....	2.4	1.8	1.7	1.5	1.3	1.5	.18	.14	.12	.12	.11	.12
Denver.....	3.2	2.4	1.9	1.6	1.2	1.4	.23	.17	.13	.12	.09	.11
Detroit.....	3.0	2.2	1.8	1.5	1.3	(1)	.20	.16	.13	.11	.09	(1)
Los Angeles.....	2.9	2.2	1.8	1.6	1.3	.9	.22	.17	.14	.13	.12	.07
Miami.....	2.5	1.8	1.7	1.6	1.3	1.1	.17	.13	.13	.12	.11	.12
New York.....	3.1	2.4	1.9	1.7	1.4	1.4	.23	.17	.14	.12	.08	.10
Philadelphia.....	3.1	2.3	1.9	1.5	1.4	.7	.22	.16	.14	.11	.11	.05
Pittsburgh.....	3.0	2.4	1.9	1.6	.7	1.3	.23	.18	.14	.13	.07	.10
San Francisco.....	2.8	2.4	2.0	1.7	1.5	1.2	.23	.18	.15	.13	.12	.09
Seattle.....	2.9	2.3	1.9	1.5	1.4	1.2	.22	.17	.15	.14	.12	.10
Washington.....	3.4	2.6	2.2	1.9	1.6	1.5	.24	.19	.16	.14	.12	.11

<sup>1</sup> Group contains less than 1.0 percent of all new houses purchased in the area.



and insurance—to purchasers' incomes is perhaps the more useful of the ratios (in table 3) for showing the financial burden of home buying. These mortgage payments are a first lien on income and, together with other fixed expenses connected with the operation of a house, are a significant part of most home owners' total expenditures.

Purchasers in the \$2,000–\$2,999 income group in the areas surveyed paid an average of 22 cents out of every dollar of income for mortgage payments compared with 10 cents in the \$7,500–\$9,999 group. The least variation among the areas was in the middle-income groups, reflecting the relative uniformity of restrictions on the large number of VA and FHA loans.

### Financing Characteristics by Areas

Homebuilding during the second half of 1949 followed a rather general pattern of population increase for most of the metropolitan areas. Proportions of homes built in relation to population were highest in those areas in which population had the greatest relative increase during the previous decade. Areas of smallest relative increase showed the smallest ratios of new houses to existing population.

Nevertheless, other factors have been important in housing volume and its geographic distribution. Government underwriting of mortgages has probably been the greatest stimulus to home building

since World War II. It has operated in varying degrees throughout the country, depending largely on the types and lending policies of the institutions active in the areas.

Mortgage companies handled over half the first mortgages in six of the areas and up to 95 percent in Miami. They placed many of the combination FHA-VA (the VA portion, a second mortgage) and VA types of loans, reselling a large part to FNMA. Banks made more than half the first mortgage loans in four other areas, in which initial equity was relatively high. In Boston, a substantial part of the first mortgage loans were made by banks, and mortgage companies made none on houses covered in the present survey. Savings and loan associations were the principal first mortgage lenders in Los Angeles. Insurance companies accounted for a third of the loans in Seattle and about a fourth in Dallas. Individuals were relatively unimportant sources for first mortgage funds.

The extent and kind of activity of the operative builder in the different areas has also influenced the number of new houses. Operative-built houses at acceptable prices, with all the details of financing arranged, have attracted many middle-income buyers who could qualify for FHA or VA type of loans. Almost 9 out of 10 of the houses covered by this survey were built by operative builders. The proportion was lowest in Cleveland (6 out of 10).

TABLE 4.—Selected mortgage characteristics of mortgaged homes completed July to December 1949, 15 metropolitan areas

Area	Average amount of mortgage			Average duration (years)		Average interest rate (percent)		Average initial equity		Average monthly mortgage payment (all)	Source of first mortgage—Percent from—				
	Total	First	Second	First	Second	First	Second	Amount	Percent of purchase price		Mortgage company	Bank	Savings and loan association	Insurance company	Individual
All areas.....	\$8,410	\$7,840	\$1,585	22.0	21.2	4.5	4.1	\$2,220	21	\$52.50	31	37	15	10	3
Atlanta.....	7,560	6,950	1,460	20.8	17.3	4.6	4.3	945	11	51.35	39	20	29	6	3
Boston.....	7,960	7,920	1,770	19.5	20.0	4.2	4.0	3,020	28	50.70	(1)	86	6	4	(1)
Chicago.....	8,970	8,600	1,795	19.8	20.6	4.6	4.2	4,020	31	53.25	30	34	22	6	4
Cleveland.....	8,795	8,420	2,110	19.0	21.1	4.5	4.0	5,550	39	60.45	9	52	17	15	6
Dallas.....	7,210	6,730	1,055	22.4	14.6	4.5	4.0	1,970	21	45.95	55	3	6	27	5
Denver.....	8,505	7,710	1,595	23.5	22.9	4.4	4.0	1,245	13	51.15	55	10	23	9	3
Detroit.....	7,905	7,740	1,515	23.0	20.5	4.3	4.0	1,605	17	47.80	65	18	4	8	4
Los Angeles.....	7,940	7,315	1,555	21.1	18.9	4.5	4.4	1,555	16	45.75	16	18	41	13	4
Miami.....	7,270	6,710	1,425	24.0	11.6	4.3	4.0	660	8	45.10	95	3	1	(1)	(1)
New York.....	8,975	8,220	1,600	22.5	24.2	4.5	4.0	2,330	21	56.40	7	80	7	5	(1)
Philadelphia.....	8,280	7,415	1,670	23.7	24.6	4.6	4.0	2,035	20	50.75	47	41	2	7	3
Pittsburgh.....	8,305	7,405	1,700	22.0	23.9	4.6	4.0	3,005	27	52.55	55	19	21	1	3
San Francisco.....	8,970	8,100	1,460	22.0	23.7	4.5	4.0	2,730	23	58.35	9	57	4	21	2
Seattle.....	8,265	8,230	(1)	20.7	(1)	4.6	(1)	2,875	26	55.90	23	22	14	33	7
Washington.....	10,175	9,545	2,070	22.4	19.4	4.4	4.2	2,690	21	62.75	53	23	6	15	2

<sup>1</sup> Less than 1.0 percent of all new houses purchased in the area.



**Sales Prices.** Houses were generally lowest priced in the three southern metropolitan areas—Atlanta, Dallas, and Miami—and highest in Cleveland, Washington, D. C., and Chicago. Because average incomes in the South have been below the national average, the market has been for the lower priced homes. Building costs are lower in Miami, for instance, where central heating is not usual and stucco on concrete blocks is the principal type of construction. Wallboard instead of plaster is used almost exclusively in Dallas, a cost-saving feature. Wage rates for most building construction trades in the South average somewhat less than those in other parts of the country. However, these lower labor costs are offset somewhat by higher prices paid for certain building materials because of added transportation charges from manufacturing areas.

Homes sold in the areas of highest sales prices generally have relatively expensive housing features and either a basement or utility room. Fewer one-story houses are sold in these areas than in the South. Central heating is the rule and a significant number of the homes have more than one bathroom. Other elements, such as the greater use of plaster or brick, also tend to raise costs. Wage rates for construction workers are also generally higher in these areas, and the proportion of homes built on contract is higher.

**Mortgage Characteristics.** Mortgage amounts varied less than purchase prices of new homes since the proportion of initial equity for higher priced houses generally increased with purchase price. The effect of a large proportion of sales to veterans on the initial equity is illustrated in Miami, Denver, and Atlanta, where at least two-thirds of all sales had veteran financing. There, average initial equity was around 10 percent of the purchase price. More than half of the new mortgaged homes in Atlanta were bought with no cash down, compared with less than 5 percent in Cleveland.

In general, second mortgages were for relatively small amounts, ranging from an average of \$1,055 in Dallas to \$2,110 in Cleveland, and averaging generally less than 20 percent of the purchase price (table 4). A large part of these loans were combination FHA-VA.

Interest rates of first mortgages averaged between 4.2 and 4.6 percent. They were weighted largely with the 4 and 4.5 percent Government-assisted loans. These types of loans, generally for 20 or 25 years, raised the average duration of first mortgages to about 20 years in most areas and to 24 in Miami. Second mortgages were for considerably shorter periods and at rates from 5 to 6 percent, except in areas where the VA-guaranteed loan with FHA first mortgage was the principal source of second mortgage.

TABLE 5.—Selected data on government assisted home financing, new houses completed July to December 1949, 15 metropolitan areas

Item	All areas	Atlanta	Boston	Chicago	Cleveland	Dallas	Denver	Detroit	Los Angeles	Miami	New York	Philadelphia	Pittsburgh	San Francisco	Seattle	Washington
Percent of all new houses purchased <sup>1</sup> :																
By veterans of World War II.....	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
VA Guaranteed.....	66	78	61	54	53	70	81	67	71	80	63	69	65	65	47	72
FHA-VA Combination.....	19	33	53	14	16	12	24	40	23	37	13	3	5	2	18	34
FHA Insured.....	33	33	2	17	15	43	44	10	31	37	42	48	46	47	1	23
Uninsured.....	8	4	1	12	9	10	9	14	3	7	5	13	5	9	23	7
Unmortgaged.....	5	7	3	11	11	4	1	2	11	(1)	1	2	6	5	4	3
By others.....	2	(1)	(1)	(1)	4	(1)	(1)	(1)	2	(1)	1	2	2	(1)	(1)	(1)
FHA Insured.....	33	22	39	45	45	30	19	31	29	20	37	31	35	33	53	28
Uninsured.....	15	5	10	11	9	13	8	19	8	13	22	19	14	18	26	15
Unmortgaged.....	13	16	24	27	31	11	7	7	17	2	10	9	11	19	15	9
Percent of all new houses purchased with no down payment.....	25	56	22	3	2	51	20	34	35	37	21	31	6	8	13	15
Percent of all veterans houses purchased with no down payment.....	37	70	35	5	2	71	24	50	49	46	33	45	9	10	28	21
Average purchase price of houses purchased by:																
Veterans of World War II.....	\$9,945	\$8,390	\$9,940	\$12,170	\$13,315	\$8,110	\$9,525	\$9,010	\$9,315	\$7,535	\$10,410	\$9,705	\$11,210	\$10,910	\$9,615	\$12,305
Others.....	12,835	9,535	12,940	14,415	16,190	12,150	12,340	11,050	11,045	10,720	13,775	12,080	12,245	14,040	13,945	15,360
Average monthly mortgage payments on houses purchased by:																
Veterans of World War II.....	\$49.50	\$49.40	\$50.60	\$58.05	\$59.35	\$44.40	\$50.60	\$46.35	\$40.40	\$43.90	\$53.85	\$50.25	\$54.25	\$56.05	\$50.45	\$61.25
Others.....	59.25	58.90	50.80	69.00	62.05	50.55	54.15	51.25	60.45	51.25	61.40	52.05	48.25	63.40	62.25	67.00

<sup>1</sup> Less than 1.0 percent of all new houses purchased in the area.

<sup>2</sup> Individual items may not add to totals because of rounding and the omission of cases for which data were incomplete.



Average monthly mortgage payments varied considerably among the 15 metropolitan areas. The lowest average monthly payment for all mortgaged houses was \$45.10 in Miami, where mortgage amounts were lowest and mortgage terms longest. The highest was in Chicago, where mortgage amounts were relatively high and a significant number of new homes were conventionally financed with shorter term loans and higher interest rates.

*Government-Assisted Loans.* A considerable part of the large volume of postwar home building can be attributed to Federal legislation which stimulated mortgage lending by private institutions. Additional encouragement was given by provision of a secondary mortgage market FNMA purchases of mortgages from the lending institutions permitted them to reuse the funds for additional loans.

Veterans bought two-thirds of the new houses—from almost half the total in Seattle to 80 percent in Denver. The straight 4-percent loan guaranteed up to \$4,000 by the Veterans Administration was used for about a fifth of all these sales.

<sup>\*</sup>Of the Bureau's Division of Construction Statistics.

<sup>1</sup>Purchase price and mortgage financing data were obtained in 15 metropolitan areas from a sample of purchasers of new 1-family houses completed between July and December 1949 and sold, for the most part, before the spring of 1950. Data exclude owner-built and cooperative houses and houses with a construction cost of \$30,000 or more, not including the cost of land.

Over half of the homes were in three of the areas—Detroit, Los Angeles, and New York—and a fifth were in Chicago, Philadelphia, and San Francisco. Relatively small parts of the total (2 percent or less) were built in Atlanta, Boston, Denver, Pittsburgh, and Seattle. The other cities surveyed were Cleveland, Dallas, Miami, and Washington, D. C.

Sampling variations differ among the areas, but studies of reliability of the data indicate that on the average chances are about 19 in 20 that the results of a complete census would not differ from sample results by more than plus or minus 1.5 percentage points for a 2 or 98 percent estimate, or plus or minus 2.5 percentage points for a 5 or 95 percent estimate. Generally, the reliability of an estimated percentage depends upon both the size of the

Some lending institutions do not favor such loans because of the relatively low interest rate.

The most frequent type of veteran's mortgage, representing about a third of all houses sold, was the FHA-VA combination loan. It was more costly to the veteran than the VA loan and was discontinued in October 1950.

FHA-insured loans were available to both veterans and others, and in the aggregate accounted for about a fourth of the total. Such loans were used by veterans only when VA guarantee types were difficult to obtain, but they represented almost half of the sales to the non-veterans.

Prices paid by veterans were significantly lower than those paid by others (chart 2). Veterans purchased a very large proportion of the operative-built houses, generally less expensive than those built on contract. Monthly mortgage payments for veterans were also substantially lower than those for other purchasers, owing to lower mortgage amounts and easier terms. About 4 out of 10 veteran purchasers had no initial equity in their new homes, and many others had an equity of 5 percent or less.

percentage and the size of the total on which it is based. Small percentages are subject to larger relative errors than larger percentages. In addition to sampling variation, the estimates are subject to biases due to errors of response and to nonreporting, but the possible effect of such biases is not included in the above measure of reliability.

A detailed statement on sampling variability is available on request to the Division of Construction Statistics, Bureau of Labor Statistics.

<sup>2</sup>Income, before taxes.

<sup>3</sup>The comparison would be more accurate but would not change the general conclusions if the income distribution for all metropolitan areas were used instead of the total urban population. The former is not available currently.

<sup>4</sup>These ratios are averages for all purchasers in the various income groups and cannot be used as a guide for an individual home buyer. To some extent, however, they reflect the income restrictions imposed by the Veterans Administration and Federal Housing Administration on mortgage amounts and payments in relation to purchasers' incomes.

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The median number of rooms in occupied units was about the same in 1950 (4.7) as in 1940 (4.8), according to a preliminary Census housing report. There were relatively fewer of both the smallest and the largest units. Farm units were usually larger than nonfarm; the median number of rooms for the former was 5.2 and for the latter, 4.6. Approximately 69 percent of all dwelling units in 1950 had private baths or showers and 71 percent had private flush toilets, as compared with 56 percent and 60 percent, respectively, in 1940.



## Family Income And New Rental Housing

GABRIEL G. RUDNEY\*

THE MAJOR SHARE of new rental housing completed in the last half of 1949 in 14 metropolitan areas went about equally to middle-income and high-income families; only about 1 in 8 units were rented by families in the low-income brackets. Half of the new housing was in the rent range of \$60 to \$89 monthly. The average monthly rent paid by all families renting the new dwellings was \$93, or more than a fifth of their average monthly income. Small families predominated among the new renters, averaging between two and three persons. Three- and four-room units were by far the most popular apartments. Half of the households were headed by veterans of World War II, who generally paid less rent for new housing than others.

In 1949, new rental housing in the 14 areas accounted for about half the national total of new rental construction. More than two-thirds of the new rental units were concentrated in 3 areas—New York, Los Angeles, and Washington, D. C., which accounted for nearly half of the 14-area total population, according to the 1950 census.

The importance of rental housing within individual areas varied widely. In the Washington area, for example, rental units comprised more than half of the new housing provided; and in the Atlanta, Miami, New York, Los Angeles, Pittsburgh, Chicago, and San Francisco areas, the proportion was from 20 to 40 percent of all new units completed in the last half of 1949. Rental housing in the remaining areas was less significant.

These are results of the Bureau of Labor Statistics' survey of 26,600 new rental units completed in 14 large metropolitan areas<sup>1</sup> during the last half of 1949, and occupied for the most part prior to the spring of 1950. Income and other related data were obtained by personal interview with occupants of new rental housing. Prior to this survey, very little had been known of the characteristics of families renting new housing.

### Rent and Income Distributions

The rentals at which new housing is offered determines to a very large extent which income groups will be the renters. This positive correlation between rent levels and income levels explains the fact that, in the areas studied, where there was a preponderance of moderate- and high-rental housing constructed, there was a concentration of middle- and higher-income families occupying the new units. Similarly, very little low-rent housing was provided and relatively few lower-income families rented new housing.

Taking the 14 metropolitan areas as a whole, about 4 in 10 families renting new housing were in the middle-income group of \$3,000 to \$5,000;<sup>2</sup> the monthly rent paid by this group averaged \$82. Half of all the new rental housing completed was in the rent range of \$60 to \$89 a month; most of these monthly rentals, however, were between \$70 and \$89. Four in 10 renter-families were in the higher-income bracket of \$5,000 or more, and their average monthly rent bill was \$114. Likewise, 4 in 10 of all the new rental units had high rents ranging from \$90 upward. Few families had incomes of less than \$3,000 and few units were provided at rents below \$60.

Although on the whole, middle- and higher-income families rented most of the housing, the proportion of tenant families at each income level varied considerably among the areas. In Chicago, for example, most of the renters of new housing had incomes of \$5,000 or more, whereas in Atlanta, most renters had incomes of less than \$5,000.

Families in the middle-income bracket—the largest tenant group in six areas (Cleveland, Detroit, Los Angeles, Pittsburgh, San Francisco, and Washington, D. C.)—rented about half of the new housing completed. In seven areas (Boston, Chicago, Dallas, Denver, Miami, New York, and Seattle), families in the higher income group (\$5,000 or more) occupied an equal or greater number of new rental units than the families in the middle-income group. In Chicago, over three-fourths of those renting new units had incomes of \$5,000 and over; in fact, half the tenant families had incomes of more than \$6,500.

Only in Atlanta, located in the South where



incomes are generally lower than the national average, was a large share (two-fifths) of the new housing rented by families in the lower-income group (under \$3,000); another two-fifths were occupied by families at the \$3,000-\$5,000 income levels. Although middle-income families in Los Angeles were by far the largest tenant group in new housing, that area had the second largest proportion of lower-income families renting new housing—a fourth of new dwellings to families with less than \$3,000 income. Median income of the tenant families in the two areas—\$3,300 in Atlanta and \$3,900 in Los Angeles—was considerably less than in any of the other areas surveyed.

### Rent-Income Relationship

The greater proportion of income spent for housing by lower than by higher income families was strikingly revealed by the 1949 survey. Averages for the 14 areas combined show that families with incomes under \$3,000 spent about two-fifths of their income for rent;<sup>3</sup> middle-income families (in the \$3,000-\$5,000 income ranges), almost a fourth; and high-income families (in the \$5,000-\$10,000 income bracket), about a fifth of income. In general, the amount spent for contract rent in new housing averaged slightly over a fifth of income.<sup>4</sup>

The same differences between higher- and lower-income groups in the proportion of income spent for rent existed in the individual areas. The only exception was Miami, where higher-income renters paid a larger proportion of income for new housing than did the middle-income group. This is probably accounted for by the larger share of income spent by high-income families for "luxury" housing in a resort area like Miami than is spent by such families in other communities.

However, average rent expenditure as percent of income varied considerably—from 16 percent in Chicago to 26 percent in Boston, Miami, and Pittsburgh. The average rent-income ratio was relatively low in both Chicago and Atlanta, yet families in the former area had the highest median income of all the areas, and families in the latter area had the lowest. Many high-income families in Chicago were able to rent in the more moderate rent range; this accounted for the low ratio.

More than 75 percent of the Chicago renters had incomes of \$5,000 or more, but only 40 percent of the new units rented for \$90 or more. In Atlanta, more than 80 percent of the renters had incomes of less than \$5,000, and over 80 percent of the units rented for less than \$70 per month.

### New and Existing Housing

Average monthly rent of new housing in most of the survey areas was more than twice the average rent for all rented housing.<sup>5</sup> This is accounted for partly by the fact that rents of the new housing reflected high costs of construction and operation, and were unaffected by controls which had fixed rent levels for the largest portion of existing urban housing. In addition, the rentals for existing dwellings reflect the substantial share (over two-thirds in some areas) of housing built more than 30 years ago, some of which is substandard.

The difference between rents for old and new housing was least pronounced in Washington, Atlanta, and Los Angeles. The large amount of new low- and moderate-rental housing in Atlanta and Los Angeles, and the relatively high rents paid for existing housing in the Nation's Capital, (the highest among the survey areas) accounted for the smaller differences in these areas.

### Factors Causing Area Rent Differences

Rent is, of course, a variable largely dependent upon site, construction, and operation costs as well as market conditions. Thus, variations in type and quality of construction and in land values, and the differences in the pattern of facilities and utilities provided in the rent, all are reflected in the rent differences among the survey areas.

In the New York area, for example, the large proportion (46 percent) of new units in elevator-apartment projects accounted for the high average monthly rent. Such projects have high per room construction costs, are located on high-value land, generally furnish equipment, utilities, and services to renters, and consequently command high rentals.

To illustrate further, rents for new housing were lower on the average in Washington than in New York, but higher than in Atlanta and Los Angeles. The differential between Washington and New York rents was due largely to differences in the



## Selected characteristics of renter families and new rented housing completed, July-December 1949, 14 metropolitan areas

Item	All areas	Atlanta	Boston	Chicago	Cleveland	Dallas	Denver	Detroit	Los Angeles	Miami	New York	Pittsburgh	San Francisco	Seattle	Washington, D. C.
Number of new dwelling units rented	26,610	1,240	130	1,400	1,330	1,270	240	780	6,660	2,150	7,350	540	1,150	90	4,100
Average monthly rent	\$93	\$59	\$103	\$92	\$89	\$89	\$94	\$87	\$77	\$120	\$110	\$100	\$90	\$83	\$87
Median family income	\$4,630	\$3,330	\$5,200	\$6,500	\$4,810	\$5,670	\$4,680	\$4,560	\$3,920	\$4,880	\$5,100	\$4,490	\$4,490	\$5,200	\$4,710
Average rent-income ratio <sup>1</sup>	0.22	0.20	0.26	0.16	0.23	0.19	0.24	0.23	0.22	0.26	0.24	0.26	0.23	0.20	0.21
Average size of family (persons)	2.7	3.0	2.6	3.2	2.9	2.6	3.0	3.2	2.5	2.7	2.7	2.4	2.7	2.7	3.1
Renter families—Percentage distribution <sup>2</sup> by items listed															
Veteran status of head of household: All families	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Veterans of World War II	51	63	46	64	67	44	58	53	48	40	40	41	45	48	74
Others	49	37	54	36	33	56	42	47	52	60	60	59	55	52	26
Income group: All families	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Under \$2,000	3	12	( <sup>3</sup> )	( <sup>3</sup> )	2	2	5	2	8	3	1	5	4	1	( <sup>3</sup> )
\$2,000-\$2,999	10	29	10	( <sup>3</sup> )	5	7	11	12	15	10	6	11	11	8	3
\$3,000-\$3,999	21	24	11	3	21	12	15	18	29	21	19	8	22	14	20
\$4,000-\$4,999	23	17	20	11	27	14	28	32	19	18	21	28	25	21	37
\$5,000-\$5,999	17	6	37	24	19	23	18	21	13	14	20	13	10	34	21
\$6,000-\$6,999	11	5	10	23	16	23	17	8	8	13	9	8	13	7	14
\$7,500 or more	7	2	5	18	1	10	4	2	5	17	6	3	5	7	4
\$10,000 or more	5	1	7	11	1	8	2	4	3	4	11	2	3	7	( <sup>3</sup> )
Unknown income	3	5	( <sup>3</sup> )	10	7	1	( <sup>3</sup> )	1	( <sup>3</sup> )	6	6	22	6	1	( <sup>3</sup> )
Dwelling units rented—Percentage distribution <sup>2</sup> by items listed															
Monthly contract rent: All units	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Under \$40	1	11	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	3	( <sup>3</sup> )	( <sup>3</sup> )	3	( <sup>3</sup> )	100	100	1	100
\$40-\$49	1	30	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	1	( <sup>3</sup> )	( <sup>3</sup> )	1	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	1	( <sup>3</sup> )	( <sup>3</sup> )
\$50-\$59	6	48	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	10	( <sup>3</sup> )	12	11	( <sup>3</sup> )	( <sup>3</sup> )	1	4	4	( <sup>3</sup> )
\$60-\$69	10	15	1	3	10	5	( <sup>3</sup> )	22	19	3	5	12	17	1	1
\$70-\$79	19	2	16	12	17	10	17	16	33	24	10	5	29	22	23
\$80-\$89	22	10	26	46	52	4	13	26	19	14	15	6	16	17	39
\$90-\$99	16	4	4	23	7	42	19	28	4	1	25	21	13	12	29
\$100-\$120	15	( <sup>3</sup> )	21	9	22	16	30	14	7	11	26	56	23	27	7
\$120-\$140	4	( <sup>3</sup> )	23	1	1	13	5	2	12	8	3	7	7	( <sup>3</sup> )	1
\$140 and over	6	( <sup>3</sup> )	10	6	( <sup>3</sup> )	7	1	2	18	13	4	4	( <sup>3</sup> )	( <sup>3</sup> )	1
Number of rooms: All units	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Under 2 rooms	1	5	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	2	3	1	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
2 rooms	8	11	( <sup>3</sup> )	3	( <sup>3</sup> )	3	1	( <sup>3</sup> )	6	22	10	4	3	4	1
3 rooms	39	16	35	19	23	12	19	22	38	41	54	30	25	20	41
4 rooms	32	49	33	7	63	22	61	31	32	25	27	47	29	54	43
5 rooms	17	18	33	52	14	64	18	27	23	10	5	17	34	17	13
6 rooms and over	2	( <sup>3</sup> )	17	18	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	1	1	1	1	9	6	1
Type of structure: All units	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
1-family houses	6	9	41	( <sup>3</sup> )	3	16	27	18	11	6	1	9	13	30	3
2-4 family structures	21	58	49	41	3	30	43	17	39	17	1	9	50	49	2
5-or-more family structures	73	33	10	59	94	54	30	65	50	77	98	82	37	21	96
Dwelling units rented—Percent having specified items															
Utilities provided in rent:															
Water	95	84	78	97	76	64	82	82	97	100	94	54	91	100	88
Electricity	24	1	34	15	( <sup>3</sup> )	6	5	( <sup>3</sup> )	6	16	9	77	36	( <sup>3</sup> )	88
Heat	51	1	58	22	( <sup>3</sup> )	1	66	34	12	7	( <sup>3</sup> )	100	88	36	24
Cooking fuel	27	1	37	14	( <sup>3</sup> )	65	26	( <sup>3</sup> )	7	14	13	77	37	24	97
Hot water	56	6	58	23	70	64	40	14	11	30	100	88	36	29	97
Equipment provided in rent:															
Refrigerator	73	74	70	90	93	55	49	73	24	91	98	81	47	52	100
Cooking stove	74	75	87	91	93	55	58	75	24	93	98	88	54	82	100
Furniture <sup>4</sup>	7	1	8	1	( <sup>3</sup> )	52	2	( <sup>3</sup> )	8	47	( <sup>3</sup> )	1	2	3	1
Garage	24	3	53	1	83	24	26	7	70	1	3	5	83	17	( <sup>3</sup> )

<sup>1</sup> Units in one large Cleveland project accounted for 70 percent of all rental units completed there during the survey period.<sup>2</sup> Units in one large Dallas project accounted for 52 percent of all rental units completed there during the survey period.<sup>3</sup> The average rent-income ratio for all areas combined and for individual areas is based on the average rent paid by families having annual income of less than \$10,000 and the average income for this group.<sup>4</sup> Percentage distributions may not always total 100 because of rounding.<sup>5</sup> Less than 1.0 percent.<sup>6</sup> Units were fully furnished.

NOTE: Because these estimates are based on sample data, they are subject to sampling variability. A detailed statement of sampling variability is available upon request.



kinds of housing provided. In contrast to New York, almost all rental units in the Washington area were in large garden developments which have lower costs of construction than elevator apartments and are usually located in outlying areas where land values are lower than in the city proper.

However, rents differed between Washington and the Atlanta and Los Angeles areas, both because of differences in the number of items included in the rent and because of structural differences. In Atlanta and Los Angeles, average monthly contract rents were lower than in any of the other areas, and very few renter families reported that rent included heat, electricity, hot water, or cooking fuel. But in Washington, nine-tenths of the families reported electricity and almost all families reported inclusion of the other three items. Furthermore, a substantial share of the new rental units in Atlanta and Los Angeles were in small two- to four-family structures for which per room construction costs are apt to be lower than for large multifamily projects, the prevailing type of new rental housing in Washington. In addition, the relatively mild climatic conditions in Atlanta and Los Angeles allow the utilization of lighter and consequently less costly types of construction.

In Miami, where rents were the highest, the average is more difficult to evaluate on the basis of construction quality or facilities provided. True, a large proportion of the new units were fully furnished luxury apartments. But the very high rent average also reflects seasonal rates for a resort area, and therefore is not indicative of the annual rent level for new housing in that area.

### Size of Dwellings

Some indication of the influence that size of dwellings has on rentals is revealed by the survey. Three- and four-room units, which accounted for 70 percent of the 14-area total for new rental accommodations, rented for a little over \$90 on the average. For the next largest group, units with 5 rooms, monthly rentals averaged \$95, and for the few units having 6 or more rooms, \$140.

For the units having fewer than 3 rooms, less than 10 percent of the total, the monthly rental was \$91. This average was relatively high be-

cause the group was heavily weighted with small "luxury" apartments in the Miami and New York areas.

### Family Size

Small families predominated among the renters of new housing. This is not surprising when account is taken of the fact that almost half of the new units provided during the survey period had only 1 to 3 rooms. Average family size in the area was about the same—2.7 persons—for the occupants of low, moderate, and high rent housing. This reflects a rather even dispersal throughout all rental classes of small apartments, which of course are suitable only for small families.

Many of the 1949 homeseekers who had large families and relatively low or moderate incomes solved their problem by purchasing homes—a possibility under the liberal financing terms available.<sup>6</sup> The more spacious rental accommodations in new buildings, of which there were relatively few, were rented at prices beyond the reach of middle- or low-income families. In addition, rental units in older buildings which might be suitable to their needs were generally in short supply, as evidenced by the still very low vacancy rates in these areas.<sup>7</sup>

### Veterans as Renters

About as many veterans as nonveterans, the survey suggests, rent new housing in metropolitan areas. Usually, however, veterans pay less rent than nonveterans.

World War II veterans comprised 51 percent of the tenant families in new rental housing in the 14 survey areas. However, the relative importance of the veteran as a renter varied, by areas, from two-fifths of the tenants occupying new housing in Miami and New York to three-fourths in Washington, D. C.

Monthly contract rent in the 14 metropolitan areas averaged \$85 for households headed by veterans as compared with \$101 for other households. Of the relatively small amount of new housing units in the lower rent ranges (under \$60), over three-fifths were occupied by veteran



families. In contrast, nonveterans occupied almost three-fifths of the much more prevalent high-rental (\$90 or more) housing. The large volume of \$60-\$89 units were more equally distributed.

<sup>\*</sup>Of the Bureau's Division of Construction Statistics.

<sup>1</sup>Surveys of the financing, sales price, and rentals of new housing were conducted in 1949 by the Bureau in the following 15 metropolitan areas: Atlanta, Boston, Chicago, Cleveland, Dallas, Denver, Detroit, Los Angeles, Miami, New York-Northeastern New Jersey, Philadelphia-Camden, Pittsburgh, San Francisco-Oakland, Seattle, and Washington, D. C. Data for the Philadelphia-Camden area were not available for this report. The 15 areas are Standard Metropolitan Areas as defined for use in the 1950 Census.

<sup>2</sup>For a discussion of who constitutes the middle-income families in the Nation, and what they should pay for housing, see: *Middle-Income Housing*, Hearings before the Subcommittee of the Committee on Banking and Currency, pursuant to amendments to Senate Bill 2246 (81st Cong., 2d sess.), pp. 12-13.

<sup>3</sup>The average rent-income ratio for all areas combined and for the individual areas is based on the average rent paid by families having annual income of less than \$10,000, and the average income for this group.

<sup>4</sup>The family income figure collected in the survey was 1949 total money income and does not cover total assets; the rent figure for new housing was that collected at the time of interview (early months of 1950). Also, the rent-income percentages do not necessarily represent the proportion of income customarily spent for rent by the surveyed families. Thus, the abnormally high rent-income ratio for the low-income group may have been caused by

the inclusion of such families as (1) those who covered housing and other expenditures by use of accumulated assets; (2) those in need of housing (immigrants, new families, etc.) who were forced temporarily to pay high rents for new housing because of shortages at lower rents; and (3) those who had an abnormally low income in 1949 (because of illness, business loss, etc.) but continue to rent at levels commensurate with their normally higher income status.

Income data should be used with caution because of the relatively high response error for that particular item.

<sup>5</sup>The rent data on all existing housing were collected in dwelling unit surveys conducted by the Bureau of Labor Statistics in a number of city areas as part of the general program for the revision of the Consumers' Price Index. "Urbanized Areas" were covered for the most part, instead of the Census "Standard Metropolitan Areas" used in the 1949-50 survey of new rental housing. However, differences between the two surveys in the area coverage were probably very slight for most areas, because new rental dwellings are usually constructed within the urbanized portion of the Standard Metropolitan Area. For scope and coverage of dwelling unit surveys of all existing housing, see Technical Note: *Correction of New Unit Bias in Rent Component of Consumers' Price Index*, Monthly Labor Review, April 1951.

<sup>6</sup>Average size of families purchasing new housing during the survey period was consistently larger in each of the 14 areas than that of families renting new housing. For additional information on new sales housing completed during the survey period see *Purchasers' Incomes and the Financing of New Homes* in this issue.

<sup>7</sup>Housing vacancy-occupancy data collected in the dwelling unit surveys (see footnote 5) showed that for 12 of the 14 areas covered in the 1949-50 survey of new housing, the vacancy rate for habitable rental housing with kitchen facilities ranged from 0.2 percent in Denver to 1.0 percent in Cleveland. Vacancy rates are not available for Dallas and Miami.

A preliminary Census report shows that dwelling units in 1950 totaled approximately 45,875,000—over 8½ million more than in 1940. This addition resulted from new construction and from conversions which increased the number of dwelling units in existing structures. Only 735,000, or 1.6 percent of the total, were vacant units offered for rent or sale. Approximately 55 percent of occupied dwelling units were owner-occupied. This was the first time that owners exceeded renters since the earliest Census collection of housing data, in 1890.

The median of estimated values placed on nonfarm units by owner occupants was \$7,400; the estimate for about three-tenths of the owner-occupied units was \$10,000 or more, and for another three-tenths, less than \$5,000. The median for vacant nonfarm units available for sale was \$8,800. These figures are for one-dwelling-unit structures, without business, and with no other dwellings on the properties.

The median monthly "contract" rent of nonfarm units, exclusive of utilities, was \$35 in 1950, compared with \$21 in 1940; 25 percent of the renters, against 7 percent in 1940, were paying \$50 or more. "Gross" rent, which included cost of water, electricity, and gas or other fuel, increased from a median of \$27 in 1940 to \$42 in 1950. The rent figures do not, the report points out, "necessarily indicate changes in rents for identical units. . . the 1950 data apply to a largely different group of rental units."



## Features and Costs of New 1-Family Houses<sup>1</sup>

LARGER and more costly homes became increasingly important in the volume of one-family houses started in metropolitan areas after 1949. As the market expanded in 1950 and early 1951, houses with greater floor space and added housing features were readily sold, and less emphasis was placed on the "economy" house. A great many operative builders who had concentrated on this type of home during 1949, appeared to have shifted some of their operations in the most recent period to larger and more expensive houses. One reason for this shift may be the growing importance of Regulation X mortgage credit terms in financing new homes. The substantial cash down payment required by the regulation is reported to have retarded sales, especially of the smaller, lower priced houses.

The Bureau's data on structural characteristics and costs of one-family houses in six metropolitan areas for three different periods from the last half of 1949 to the spring of 1951 are shown in the accompanying table. Information was obtained from a sample of one-family houses started in Boston, Chicago, Miami, New York, San Francisco, and Washington, D. C., for the following structural characteristics: floor area; number of bathrooms; basement or utility room; type of window frames; type of heating; and type of builder.<sup>2</sup> The most important factor in the 28-percent increase in average construction costs for the one-family houses started in these six areas was the shift from small to relatively larger and more fully equipped houses. Basic construction costs rose but not to as great a degree.<sup>3</sup> Construction costs for the homes built in the six areas averaged \$9,215 in the second half of 1949; \$10,130 during the second and third quarters of 1950; and \$11,765 by the first quarter of 1951.

After 1949, the relative importance of the larger sized houses increased. About two-fifths of the houses started in the latter half of 1949 were in the largest size group (those having 1,000 or more

square feet of floor area). This proportion had increased to almost half the total during the 1950 survey period and to about three-fifths in the first quarter of 1951. Smallest sized houses (800 square feet or less of floor space) decreased in number from 27 percent of all houses started in the 1949 period to only 10 percent of the total in early 1951.

Miami furnishes a striking example of the changes in importance of the largest and smallest houses between 1949 and 1951. Each of these groups made up about a third of all 1-family houses started in the second half of 1949. In early 1951 the large size had reached 60 percent of the total and the small size had declined to 15 percent. It is this marked change in relative size composition which largely accounts for the 45-percent increase in construction costs over the period for the houses started in the Miami area.

A cost-saving feature frequently adopted for the "economy" house has been either the substitution of a utility room for a basement or the omission of both facilities. The latter practice has become relatively less frequent. In the New York area, the proportion of houses started with neither basement nor utility room declined from 19 percent of the total in the 1949 period to 5 percent in the first quarter of 1951. In Miami, however, where the lack of a central heating plant makes the omission of both basement and utility room more feasible, the proportion of houses having neither increased somewhat.

About 23 percent of the new 1-family houses covered by the 1951 survey had more than 1 bathroom in contrast to about 15 percent in the previous two periods. The most significant change in this respect occurred in the San Francisco area where the proportion of houses with more than 1 bathroom rose from 8 to 22 percent over the period.

Where central heating is a necessity because of climate, other types of heating are comparatively infrequent. In Boston, Chicago, New York, and Washington, practically all homes were found to have some type of central heating in each of the surveys. However, in San Francisco, where central heating is less common than space heating, the central plant was a feature



## Structural characteristics and costs of 1-family houses started, 6 metropolitan areas, 1949-51

Metropolitan area and period	Number of houses started	Average construction cost	Percent of all 1-family houses started																	
			Floor area (square feet)			Number of baths			Basement			Window frames			Type of heating			Built by		
			Less than 800	800-999	1,000 and over	None	One	More than one	Full or partial	Utility room only	No basement or utility room	Wood	Steel	Aluminum	Central	Other	None	Operative builder	Contractor	Owner
<i>All Areas</i>																				
1949: 3d-4th quarters...	66,760	\$9,215	27	35	38	(1)	85	14	60	16	24	71	24	5				73	15	13
1950: 2d-3d quarters...	114,770	10,130	19	35	46	(1)	83	17	63	18	19	60	29	11				73	13	14
1951: 1st quarter.....	28,755	11,765	10	30	59	1	75	23	61	18	21	57	28	14				77	12	10
<i>Dallas</i>																				
1949: 3d-4th quarters...	4,240	9,135	40	23	37	(1)	84	16	90	3	7	94	6	(1)	100	(1)	(1)	63	12	25
1950: 2d-3d quarters...	7,030	9,650	30	31	39	(1)	84	16	93	2	5	90	10	(1)	100	(1)	(1)	59	20	21
1951: 1st quarter.....	1,545	10,935	25	32	43	(1)	78	22	94	4	2	88	12	(1)	98	(1)	(1)	69	14	17
<i>Chicago</i>																				
1949: 3d-4th quarters...	13,010	10,565	25	37	39	(1)	87	13	71	21	7	87	10	3	92	8	(1)	57	23	20
1950: 2d-3d quarters...	23,290	11,115	20	36	43	(1)	85	14	71	25	4	78	17	4	95	2	3	55	20	25
1951: 1st quarter.....	3,475	13,000	11	39	45	2	89	9	72	23	5	82	12	4	93	2	(1)	63	24	13
<i>Miami</i>																				
1949: 3d-4th quarters...	5,380	7,235	32	32	32	5	83	12	(1)	50	50	8	67	21	(1)	7	93	85	6	9
1950: 2d-3d quarters...	6,625	8,250	11	49	40	(1)	81	19	(1)	57	43	3	36	60	(1)	16	84	73	11	16
1951: 1st quarter.....	2,635	10,560	15	24	60	1	71	27	(1)	54	56	6	28	65	(1)	26	73	68	15	17
<i>New York</i>																				
1949: 3d-4th quarters...	29,100	8,935	32	35	33	(1)	84	16	76	5	19	75	21	4	99	(1)	(1)	75	16	9
1950: 2d-3d quarters...	49,775	9,435	25	36	38	(1)	84	16	78	11	13	61	26	13	99	(1)	(1)	80	11	9
1951: 1st quarter.....	11,620	12,335	10	34	55	(1)	74	26	82	13	5	63	24	13	100	(1)	(1)	82	8	10
<i>San Francisco</i>																				
1949: 3d-4th quarters...	8,940	8,865	7	37	56	(1)	92	8	17	12	71	72	25	3	31	69	(1)	80	12	8
1950: 2d-3d quarters...	15,390	9,365	4	20	75	(1)	83	17	19	11	70	44	48	7	34	65	(1)	72	17	11
1951: 1st quarter.....	5,505	10,300	3	14	82	2	76	22	20	13	67	56	37	6	44	56	(1)	78	15	7
<i>Washington</i>																				
1949: 3d-4th quarters...	6,090	9,985	23	37	41	2	80	18	52	40	8	52	46	2	96	4	(1)	84	5	11
1950: 2d-3d quarters...	12,675	11,185	9	41	49	1	79	20	66	31	3	51	47	2	90	1	(1)	86	6	8
1951: 1st quarter.....	3,980	12,200	8	35	53	5	66	29	71	25	4	42	49	6	95	2	(1)	85	7	8

<sup>1</sup> Less than 1.0 percent.

NOTE.—Percentages may not total 100 because of rounding or the omission of items for which the data were unknown.

in a significantly larger proportion of the new houses in early 1951 than in 1949. Some form of heating (almost all space heating) was provided in 26 percent of the new homes started in Miami in early 1951 and 7 percent in the 1949 survey.

Steel and aluminum were used increasingly in the window frames of new houses during the 1951 survey period. Metal windows, particularly the large size steel windows in the modern type house, appeared to be coming into greater use in these areas. However, almost three-fifths of the new houses started in early 1951 still had wooden window frames. In the Miami area, the more expensive aluminum had replaced steel as the most frequent type of window used in new homes,

adding further to the increase in construction costs in that area.

<sup>1</sup> Prepared in the Bureau's Division of Construction Statistics.

<sup>2</sup> These data are based on sample surveys and are therefore subject to sampling variability. A detailed statement of sampling variability is available on request to the Construction Statistics Division of the Bureau of Labor Statistics.

<sup>3</sup> The average construction cost figures represent the average of builders' estimates of the construction cost of all the new private one-family houses started in an area during the periods shown. Construction cost includes the cost of labor, materials, subcontracted work and that part of the builders' overhead and profit chargeable directly to the building of the structure. It excludes sales profit, cost of land and development, and architectural, engineering, and all other such nonconstruction expenses. It is affected not only by changes in the cost of materials and labor, but also by variations in the size and design of the houses and in the type of projects started, differences in construction methods employed, and other variables.

Average prices for all building materials rose approximately 20 percent from the last half of 1949 to the first quarter of 1951. A average hourly earnings of construction workers increased by about 10 percent over the same period.



# Expansion of Employment in the Aircraft Industry

MANNIE KUPINSKY\*

EMPLOYMENT in the aircraft industry has expanded rapidly since the start of hostilities in Korea.<sup>1</sup> Between June 1950 and April 1951 total employment rose from 170,500 to 279,500. Moreover, in the same 10 months, this enlarged labor force substantially increased its production power because of the extension of the average workweek from 40.5 to 43.5 hours.

The rising demand for aircraft is likely to double the need for workers between the spring of 1951 and late 1952. Experience gained in manpower recruitment during World War II will be used advantageously by the aircraft industry in the current emergency. About 86 percent of the industry's employment was concentrated in 5 States in the spring of 1951. Since all but one of these States are some distance from the industrial areas of the East and Midwest, this major segment of the industry cannot easily absorb surplus labor made available in the latter industrial areas by cutbacks in civilian production. Another factor which may slow the growth of the industry is the need for a relatively large group of professionally trained technicians. On the other hand, the industry can fill part of its unskilled and semiskilled worker requirements by the increased employment of women.

Substantial orders for aircraft have been received from the United States Air Force which plans an air arm of 95 wings by October 1952, and from the Navy which plans a moderate increase in air strength by mid-1952. Other orders have been received as a result of the United States commitment under the Mutual Defense Assistance

Program. The over-all goal of the industry, as announced by the President in his State of the Union message early this year, is the capacity to produce 50,000 planes a year.

Shipments have not kept pace with the sharp increase in employment. Plants have been busy preparing for higher production rates, training new personnel, and filling material pipelines. Moreover, since airplanes have long production cycles, shipments from last summer's orders have only just begun to appear.

Several factors will facilitate rapid conversion to quantity production, namely, a fund of experience and managerial skill from the World War II period and substantial reserves of plant facilities and machine tools. In addition, many models of operationally tested airplanes are ready for quantity production.

On the unfavorable side, the greater complexity and weight of current airplanes require more man-hours, more skill, and more materials than earlier types. The industry's needs for engineers, designers, scientists, and skilled craftsmen will be particularly difficult to fill because of the current shortage of such personnel.

## Trend in Employment

The level of aircraft employment has, generally, been closely related to the military aircraft needs of the United States. Less than a quarter of the 5,856 planes produced in 1939 were military craft and employment for the year averaged but 45,100. Only a modest military air arm was then contemplated since the Germans had not yet demonstrated the effectiveness of air power. The civilian market for airplanes was also limited. Commercial air transport was growing, but still in its infancy, and there was little personal plane flying.

In the spring of 1940, the President called for production of 50,000 planes a year, a goal which was more than doubled after Pearl Harbor. As a result, the airframe industry expanded tremendously. By 1943, it employed an average of 882,100 workers, not including employment in subcontracting plants. During this peak employment year, 86,000 planes were produced.

Employment dropped sharply at the end of World War II, but the industry managed to retain many skilled workers. Until the current

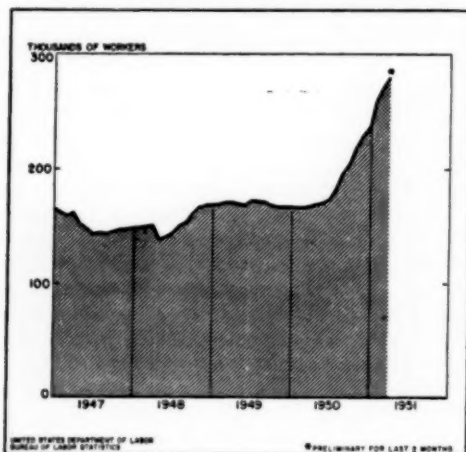


expansion, postwar fluctuations in employment were minor. The increase in employment during late 1946 and early 1947 (see chart 1) reflected civilian demand. Flight training schools bought many light planes and commercial airlines added a large number of transports. After this spurt, civilian plane orders began a downward trend which continued through 1950, forcing several personal plane builders to shut down.

After 1947, employment fluctuated with the size of military appropriations for aircraft. The 12 percent increase in employment from 1948 to 1949 reflected the tripling of military aircraft purchases in fiscal year, 1949. The reduction in military appropriations for fiscal year, 1950, brought an employment decline in late 1949 and early 1950. Participation of the United States in the Korean conflict caused a sharp upturn in appropriations for military aircraft from \$1,754 million in fiscal year ending June 30, 1950, to \$6,621 million in fiscal, 1951. As a result, employment increased by more than half between June 1950 and April 1951.

About half the aircraft industry is concentrated on the West Coast, where 51.5 percent of the industry's employment was located in February 1951, including 41.8 percent in California. Other States with substantial aircraft manufacturing are Washington, Texas, Kansas, and New York.

Chart 1. Employment in Aircraft Manufacturing



The industry is made up of relatively few plants, with those of large size predominating.

The West Coast also contained the major concentration of the industry in 1940, but a deliberate policy was adopted of decentralizing the industry inland to lessen its vulnerability to air attack. As a result, by 1944, employment on the West Coast had declined, relatively, from 60 to about 22 percent of total airframe employment.

A similar shift may occur during the next year and a half. The reopening of reserve plants, conversion of other plants to airframe production, and the building of new facilities will reduce the relative size of the West Coast segment of the industry. Substantial employment will again appear in the States of Tennessee, Georgia, Oklahoma, and Michigan. The percentage distribution of aircraft employment, by State, is shown below.

	June 1950	February 1951
New York.....	10.3	10.0
New Jersey.....	.6	.3
Pennsylvania.....	.9	1.0
Ohio.....	3.1	2.3
Missouri.....	3.2	2.8
Kansas.....	8.7	10.5
Maryland.....	7.6	6.7
Texas.....	13.9	14.3
Washington.....	10.4	9.7
California.....	40.5	41.8
Other States.....	.8	.6
Total.....	100.0	100.0

#### Trend in Shipments and Types of Aircraft

Shipments of aircraft, like employment, have been closely related to military needs. Aircraft development has also depended on military funds for continued research.

In 1940, military production began to grow and total shipments were 26.5 million airframe pounds. During the war year of 1944, the industry produced more than a billion airframe pounds of aircraft. The latter craft were, for the most part, airplanes with piston-powered engines, a very few helicopters, and some gliders.

In 1946, shipments declined to 38,400,000 airframe pounds. Personal planes were the industry's major product that year, comprising 52 percent of total shipments. Beginning in 1948, shipments of aircraft were preponderantly mili-



tary. (See table 1 and chart 2.) Military contracts awarded the industry for the development of improved craft resulted in the delivery of bigger and more complex jet and piston-powered planes and several improved types of helicopters.

During postwar years, some plants attempted to use their idle capacity for the production of non-aeronautical products, such as gas appliances and aluminum boats and trailers. These ventures did not prove completely successful and by late 1950, most of them had been discontinued.

TABLE 1.—Aircraft shipments by airframe weight  
(Weight in thousands of pounds)

Year	Total <sup>1</sup>		Military		Transport		Personal	
	Weight	Percent	Weight	Percent	Weight	Percent	Weight	Percent
1946.....	26,500	100	23,100	87	3,400	13	—	—
1947.....	29,190	100	25,180	86	4,010	14	—	—
1948.....	35,290	100	23,180	66	12,110	34	—	—
1949.....	36,540	100	29,800	82	6,740	18	—	—
1950.....	42,920	100	37,000	86	5,920	14	—	—

<sup>1</sup> Segments may not add to total because of rounding.

<sup>2</sup> Includes both transport and personal planes.

<sup>3</sup> Military total for 1950 estimated by Aircraft Industry Association, and published in Jan. 8, 1951, issue of *American Aviation*.

Source: Civil Aeronautics Administration.

Current and contemplated models of military aircraft are more varied than ever before. Jet-powered fighters and bombers of ever-increasing speeds are being developed and used by our armed forces. At the same time, the helicopter has become an integral part of our military forces. Nicknamed the "jeep of the Korean War," the usefulness of the craft is such that more are on order now than were built during the entire World War II period. The Army is considering the use of large numbers of these craft in the movement of men and supplies.

Other types of aircraft and guided missiles are either already in production or approaching it. Guided missiles are gaining greater importance in aircraft production. Rocket-propelled craft are in the experimental stage, and the development of atomic-powered aircraft is now being studied.

### Employment Outlook

By late 1952, airframe employment probably will total more than double the 279,500 in April 1951. The estimate cited excludes employment in plants working solely on subcontracts and not producing complete aircraft. Prime contractors

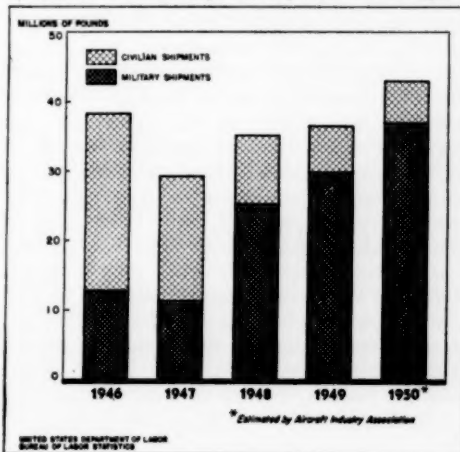
are expected to expand subcontracting to speed up production. Use of this method will limit their own plant expansion and cushion future readjustments if orders are reduced suddenly.

The estimate of future employment is based on currently programmed military aircraft procurement, the level of civilian transport production approved by the Defense Production Administration, and a light plane production of about 2,500 planes a year. It is also assumed that there will not be a significant change in international relations.

Increased volume and the length of runs should permit reductions in man-hour requirements per airframe pound in the coming months. This was the experience at peak World War II production when output per man-hour increased substantially between 1940 and 1944. The same trend in output per man-hour reappeared in 1949 (according to preliminary estimates) when the volume of plane manufacturing increased moderately. However, radical changes in the types of aircraft built could delay the expected reduction in man-hours.

Standby plants to be reopened in the coming year probably will be staffed initially by a nucleus of workers transferred from existing plants, but the recruitment of former employees in each locality undoubtedly will be pressed. Most of the plants in this industry are not favorably located to readily absorb workers displaced from

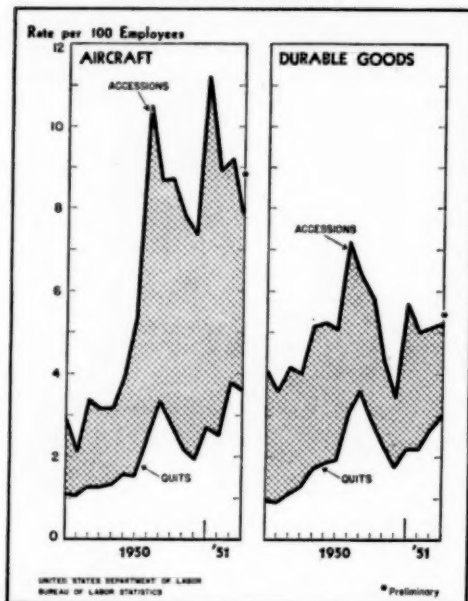
Chart 2. Aircraft Shipments by Airframe Weight





cut-back civilian plants in the Eastern and Mid-western industrial areas. Additional labor may be obtained by hiring more women already in the aircraft centers and by extending the workweek.

**Chart 3. Labor Turn-Over in Aircraft and Durable-Goods Manufacturing**



The labor needs of the industry are somewhat higher than is indicated by the magnitude of plant expansion alone. Maintenance of any specific level of employment requires continuing replacement of a certain number of workers who leave their jobs for various reasons. Currently, the rate of quits in the aircraft industry, despite its heavy hiring, compares favorably with the average for all durable-goods manufacturing (chart 3). However, in any period of heavy hiring (and an accompanying shrinking labor supply), quits tend to increase as people leave their jobs to accept alternative employment opportunities or because they are unadaptable to the type of work. Quits in aircraft plants have risen sharply in several areas where there is a very critical labor supply. These areas are Seattle, Wash., Wichita, Kans., Fort Worth, Tex., and San Diego, Calif.

Employment levels in the industry will remain high beyond 1952 if international relations remain unchanged. Production of improved models of planes and the development of guided missiles will require substantial employment. Expanded demand for civilian planes may also result if air travel continues to grow and airplanes are more widely used for business, agriculture, and pleasure.

### Occupational Requirements

Airplanes never become completely standardized and, therefore, a large staff of professional, scientific, and technical employees is required to develop and introduce improvements. In June 1950, they comprised 9 percent of total employment. Engineers and draftsmen are among the largest occupations in this group.

Although most plant workers are semiskilled, a great number of highly skilled craftsmen are also employed. For example, one large company had some 628 job classifications. Light plane manufacturers have a simpler occupational structure. The airframe industry is currently advertising by radio, television, and newspaper for workers in the following list of jobs.

- \*Engineers (all types).
- \*Draftsmen (all types).
- \*Electronic technicians.
- \*Mathematicians.
- Stress analysts.
- \*Tool and die makers.
- Tool grinders.
- Jig and fixture workers.
- \*Aircraft and engine mechanics.
- Milling machine operators.
- Engine lathe operators.
- Template makers.
- Burr bench operators.
- \*Aircraft loftsmen.
- \*Model makers.
- Sewing machine operators.
- Precision grinders.
- \*Aircraft electricians.
- \*Aircraft instrument mechanics.
- \*Aircraft assembly mechanics.
- \*Aircraft engine assembly mechanics.

\*On the U. S. Department of Labor's List of Critical Occupations.

The complexity of modern aircraft requires the employment of an increased proportion of engineers. For example, the Lockheed Aircraft Corp. reports that it is currently spending 1 hour of engineering for every 4 hours of factory work,



while in 1945 the ratio was but 1 to 10. Electronic and electro-mechanical engineers are needed in great numbers. The latter group probably outnumbered aero-dynamic engineers currently, a reversal of importance since the end of World War II.

Requirements for semiskilled plant workers and trainees are rising as they did in World War II, because many jobs are being broken down to make the maximum use of the limited supply of skilled workers. The latter are being placed in supervisory and key production positions while their former jobs are divided into simpler units that can be handled by less skilled workers. This movement tends to increase the proportion of unskilled workers in the industry's labor force.

Further changes in the composition of the work force may occur in the near future. Improved machinery may reduce both skilled and over-all manpower needs. At the same time, new products such as guided missiles, which require greater precision and highly polished outer surfaces, may require the addition of new skills.

### Employment of Women

Women made up 12 percent of over-all aircraft employment in June 1950 and 14 percent in February 1951. By contrast, a peak proportion of about 40 percent was reached during World War II. In 1943, about 350,000 women were employed in aircraft plants; in February 1951, the total was about 35,000.

In February 1951, the proportion of women employed varied significantly, by State. New York employed the lowest proportion of any State with major aircraft plants. Kansas and Washington employed a somewhat higher proportion. California, which leads all States in aircraft employment, reported the highest proportion of women.

The increased weight of present aircraft and component parts has been cited as a deterrent to the employment of women. Nevertheless, women are currently performing numerous jobs satisfactorily. A partial list of these include:

- Radio and electric bench assembly.
- Drill press operators.
- Light riveting.
- Welders—light work.
- Production control clerks.

- Magnetic machine inspectors.
- Wiring.
- Tool crib attendants.
- Shipping.
- Paint and processing.
- Inspectors.
- Sewing-machine operators.
- Tube benders.
- Tube cutters.

### Trend in Workweek and Earnings

The industry increased its workweek sharply between June 1950 and April 1951. In the latter month, weekly hours averaged 43.5 compared with 40.5 in June 1950 (table 2) and hours were still increasing. In April 1951, several plants reported growing numbers of plant workers working Saturdays. Engineering and technical workers have been on an extended workweek for some time.

Weekly earnings of production workers increased 16 percent between June 1950 and April 1951 (table 2). This gain reflects the sharp increase in hours and a wage increase of about 6 percent obtained in the fall of 1950. The fall in hourly earnings between January and April 1951, despite increased overtime, is largely attributable to the increased number and proportion of unskilled and semiskilled workers added to the work force.

TABLE 2.—Hours and earnings of production workers in the aircraft industry, 1947-51

Year and month	Average weekly—		Average hourly earnings
	Earnings	Hours	
1947.....	\$53.99	39.7	\$1.360
1948.....	60.21	41.1	1.564
1949.....	62.69	40.5	1.548
1950.....	67.15	41.4	1.622
1950: June.....	64.48	40.5	1.592
July.....	64.99	40.8	1.593
August.....	68.29	42.6	1.603
September.....	70.50	42.7	1.651
October.....	69.17	42.1	1.643
November.....	68.68	41.5	1.655
December.....	72.08	42.6	1.690
1951: January.....	74.52	43.2	1.725
February.....	74.18	43.1	1.721
March.....	74.82	143.4	1.724
April.....	74.60	143.5	1.715

<sup>1</sup> Preliminary.

\*Of the Bureau's Branch of Industry Studies.

<sup>1</sup> The aircraft manufacturing industry includes establishments primarily engaged in manufacturing or assembling complete aircraft. It excludes establishments primarily engaged in producing engines, propellers, and parts, and subcontractors who do not produce complete aircraft.



# State and Local Governments, 1909 to 1948<sup>1</sup>

CAROL P. BRAINERD

NON-FEDERAL GOVERNMENT civilian employment and payrolls far exceed Federal, although the indispensable day-to-day work performed by non-Federal agencies is often overshadowed by the growing importance of the Federal Government, especially in time of war. In 1948, after the great Federal expansion caused by World War II, State and local governments employed 240 of the 371 government workers in each 10,000 of the population; their share of annual government payrolls amounted to \$37 of the \$61 per capita. The present study analyzes non-Federal employment and payrolls both by levels (State and local) and functions (school and nonschool). For the first time, a cross classification is used which was made possible by the estimates of the State, County, and Municipal Survey.

Non-Federal governments differ widely from State to State in the extent of their activities as expressed by employment per 10,000 and by payrolls per capita of State population. Urbanization, income payments to individuals, rural population density, and the number of school districts help to explain the differences.

In largely urban States, local governments tend to employ more workers per 10,000 and to spend more per capita for payrolls than in rural States, as do high-income compared with low-income States. However, local school employment (not payrolls) is an exception—the higher the percentage of urbanization or the level of per capita income, the lower the number of local school employees in relation to population. Moreover, in States with thickly settled rural areas, school

employment tends to be much lower per 10,000 than where rural populations are sparse. The policy of compulsory public education appears primarily responsible for these negative relationships. But school employment per 10,000 tends to increase where the number of school districts is large in relation to population.

State governments are called upon to furnish relatively more facilities for higher education specifically and to devote a greater part of their employment and payrolls to such education when rural populations are sparse than when they are dense. By contrast, relatively great State non-school activity is more likely to be associated with large per capita income payments.

The share of American governments in national civilian employment nearly doubled in the 40 years, 1909-10 to 1948, from less than 5 percent to over 9 percent. The payroll gain was three-fifths in the same period, from 7 percent to nearly 12 percent of the total; per capita government payrolls rose from \$18 to \$61 measured in 1940 dollars.

Non-Federal governments supplied most of the growth in public employment and payrolls between 1910 and 1940; Federal operations were chiefly responsible for the net expansion between 1940 and 1948. State governments tripled their employment per 10,000 and quadrupled their payrolls per capita in 40 years. Nevertheless local governments made up three-quarters of the non-Federal total in 1948, and were consequently responsible for most of the increase in non-Federal activity in the period.

Increased defense activity since 1948 has reversed a downward movement which appeared in Federal employment and payrolls after World War II, but by mid-1951 had not halted the postwar increase in non-Federal operations. However, there is some indication of leveling off.<sup>2</sup>

Education, always the largest function of State and local governments as a whole, absorbed about 43 percent of non-Federal employment and payrolls in 1948. It accounted for 102 employees per 10,000 and \$16 of payrolls per capita compared with 138 employees per 10,000 and \$21 per capita for all other functions. For the States, education, highways, and institutions were the chief areas of increase. Locally, schools ranked first. Cities also emphasized protection, enterprises, highways, and sanitation; and counties



concentrated on general control, road work, and institutional care. Less extensive functions which increased in relative importance in the period were health and welfare services. In general, local development followed city development because cities were the largest class of local units. At all levels, functional continuity was more marked than functional innovation. In spite of impressive rates of growth, the volume of employment and payrolls in newer services failed to equal those in services which had long constituted the core of government work. Beneath the shifting functional patterns six basic factors can be recognized—population change, urbanization, industrialization, war, depression, and the national faith in education.

### Interstate Variations

Local governments varied from tiny school districts with one paid employee to the City of New York with 222,000 employees in 1950. The number of active local governments is probably about 135,000. Besides large and small counties and cities, there are towns of the New England type, townships, independent school districts, and other special districts organized for many purposes, from mosquito control and weed eradication to the operation of bridges and tunnels. Variation in State government employment is less extreme but still great—from 2,000 workers in Nevada to 83,000 in New York.<sup>3</sup>

More striking than the variations in basic size are the wide interstate differences in the number of persons employed and in the amounts paid relative to population, by State and local governments. Contrasts existing in 1938 are summarized in table 1.

TABLE 1.—Ranges shown by State arrays of non-Federal government employment and payrolls, in relation to population, 1938<sup>1</sup>

Level and function	Number <sup>2</sup> of employees per 10,000 of population		Monthly payroll per capita of population	
	Highest State	Lowest State	Highest State	Lowest State
State governments:				
School <sup>3</sup> .....	29	2	\$0.30	\$0.04
Nonschool.....	107	25	1.45	.22
Local governments:				
School.....	145	68	1.39	.26
Nonschool.....	153	34	2.28	.25

<sup>1</sup> Civilian non-relief data.

<sup>2</sup> Monthly average, largely unadjusted for part-time work.

<sup>3</sup> Excluding Delaware, where the State, not local governments, operates the majority of the public schools.

Five factors have been studied for clues to State differences in the extent of their government activities at any one time: The degree of urbanization; the density of rural populations; the number of school districts; the number of non-school units relative to population; and per capita income. In analyzing the influence of each of these factors, the four employment and four payroll categories shown in table 1 must be considered separately. This is necessary because State and local governments do not necessarily behave alike, and school and nonschool requirements differ, and even employment and payrolls for the same level and the same function do not always follow identical patterns. Coefficients of correlation based on simple comparisons of State ranks are shown in table 2. They give, in very condensed form, a cross section of major reasons for differences in non-Federal activity from State to State.

TABLE 2.—Coefficients of correlation ( $\rho$ ) between eight employment and payroll series and five independent factors

Series, 1938	I Percent urban 1940	II Rural population density 1940	III School districts per 100,000 1942	IV Non-school units per 100,000 1942	V Income payments per capita 1938
Employment per 10,000: <sup>1</sup>					
1. State school.....	-0.20	-0.71	.....	.....	-0.01
2. State nonschool.....	.13	-.28	.....	.....	.38
3. Local school.....	-.35	-.70	0.59	.....	-.20
4. Local nonschool.....	.74	-.14	.....	0.19	.75
Payrolls per capita: <sup>1</sup>					
5. State school.....	-.01	-.67	.....	.....	.17
6. State nonschool.....	.26	-.32	.....	.....	.56
7. Local school.....	.73	-.10	.16	.....	.80
8. Local nonschool.....	.90	.08	.....	-.07	.86

<sup>1</sup> Civilian non-relief data.

Local government activity, which in 1938 accounted for 78 percent of all non-Federal employment and payrolls, appears to be closely related to the degree of urbanization and to per capita income (lines 3, 4, 7, and 8 in columns I and V of table 2). In a given State, the higher the percentage of urban population and the income per capita, the larger the volume of local nonschool employment per 10,000 of the State population, and the higher the per capita payrolls for both school and nonschool purposes. Payrolls are especially affected because city wage rates tend to exceed those in rural areas and because city governments rely less on part-time workers than do rural governments. In contrast, the



greater the percentage of urban population in a State, the smaller the number of local school employees per 10,000 of State population; per capita income shows a similar but less definite tendency. Local school employment is much lower per 10,000 in States with dense rural population than in those where it is sparse. It is higher where there are a great many small school districts than where there are relatively few large ones. School payrolls, however, and nonschool work in general appear to be affected very little or not at all by either rural population density or the number of governmental units per 100,000.

The long-accepted policy of compulsory public education, already mentioned, helps to explain these negative relationships. Law requires schools in rural territory as well as in cities—a situation which does not exist, for example, in the case of sidewalks or fire protection—thus offsetting the basic positive relationship between local government activity and urbanization. Since the highly urban States are also high-income States, the income relationship is also reversed. The unavoidable inefficiency involved in serving a thinly spread student group increases the volume of rural school employment relative to population, through excessively low pupil-teacher ratios, or by causing a substantial amount of part-time work, or by requiring transportation, or all three. However, school payrolls per capita are not raised in the same way, because of lower wages and more part-time work in rural than urban areas and because the more expensive types of schooling are not provided in rural areas to the same extent as in cities.

Urbanization and income are not truly independent of each other, and for this reason their effects cannot be disentangled by means of the simple correlations used here. Jointly, they tend to raise the rate of both nonschool employment and payrolls for all purposes. Their importance is emphasized in table 3, which shows that the percentage of local activity devoted to nonschool purposes rises with the degree of urbanization and the size of per capita income. The entire analysis of local employment and payrolls indicates that education (a basic function of local governments regardless of size or resources) becomes a smaller part of a larger total, as resources increase with urbanization and as other functions are added in increasing volume.

TABLE 3.—Coefficients of correlation ( $\rho$ ) between percentage distributions of employment and payrolls and three independent factors

Percentage distribution of Non-Federal employment and payrolls	I Percent urban 1940	II Rural population density 1940	V Income payments per capita 1938
<b>Employment</b>			
Non-Federal total by levels:			
State percentage.....	-0.28	-0.14	-0.06
Local percentage.....	1.28	1.14	1.06
Non-Federal total by functions:			
School percentage.....	-0.84	-0.27	-0.82
Nonschool percentage.....	1.84	1.27	1.82
State total by functions:			
School percentage.....	-0.27	-0.39	-0.30
Nonschool percentage.....	1.27	1.39	1.30
Local total by functions:			
School percentage.....	-0.86	-0.19	-0.81
Nonschool percentage.....	1.86	1.19	1.81
<b>Payrolls</b>			
Non-Federal total by levels:			
State percentage.....	-0.60	-0.38	-0.32
Local percentage.....	1.60	1.38	1.32
Non-Federal total by functions:			
School percentage.....	-0.59	-0.17	-0.63
Nonschool percentage.....	1.59	1.17	1.63
State total by functions:			
School percentage.....	-0.14	-0.28	-0.24
Nonschool percentage.....	1.14	1.28	1.24
Local total by functions:			
School percentage.....	-0.70	-0.25	-0.61
Nonschool percentage.....	1.70	1.25	1.61

<sup>1</sup> Items actually computed. Reversing the sign gives the coefficient for the complementary percentage of each pair.

At the State level, the two main functional groups (school and nonschool) behave differently, but employment and payrolls move together within each function. Education responds most strongly to rural population density, and other functions to per capita income payments. Urbanization here exerts little or no direct influence.

Where rural populations are sparse, State governments tend to increase their rates of nonschool activity somewhat; raise their rates of both employment and payrolls in the field of higher education sharply (table 2); and increase the share of education in total State employment and payrolls a little (table 3). But the higher the per capita income in a State, the greater the per capita volume of employment and payrolls used for nonschool activities (table 2).<sup>4</sup>

### The Government Share in the Economy

The share of all governments in American civilian employment practically doubled in the 40 years ending with 1948, and their share of total civilian payrolls grew by three-fifths, as already indicated. This development (summarized in table 4) was part of the expansion of the entire



group of service industries to which governments (i. e., defined inclusively, according to the public character of the employing agency) belong—an expansion originating in the period of industrialization after 1870, and continuing irregularly since then.

The 1.7 million civilian government employees in 1910, equivalent to 186 for each 10,000 inhabitants, compare with 5.4 million in 1948, equivalent to 371 for each 10,000 persons. Where 1 in 21 civilians worked for some government in 1910, 1 in 11 was so employed in 1948. In constant 1940 dollars, civilian government payrolls totaled \$1.7 billion in 1910 and \$8.9 billion in 1948, rising from \$18 per capita to \$61.

State and local governments supplied most of the growth in public activity between 1910 and 1940, but Federal operations were chiefly responsible for the expansion from 1940 to 1948.

TABLE 4.—Employment per 10,000 and payrolls per capita, for the United States as a whole and for governments, by levels, 1910-48<sup>1</sup>

Series	1910	1915	1920	1925	1930	1935	1940	1948
Number of employees <sup>2</sup> per 10,000 of total population <sup>3</sup>								
United States total <sup>4</sup> .....	3,781	3,778	3,563	3,566	3,504	3,213	3,510	3,935
All governments.....	186	202	234	229	249	270	297	371
Federal.....	43	44	66	49	50	63	79	131
Non-Federal.....	143	158	169	180	198	207	218	240
Annual payrolls <sup>5</sup> per capita of total population <sup>6</sup>								
United States total <sup>4</sup> .....	\$248	\$264	\$267	\$309	\$311	\$285	\$370	\$526
All governments.....	18	21	19	26	33	40	48	61
Federal.....	5	5	6	7	8	11	15	24
Non-Federal.....	13	16	13	20	25	29	33	37

<sup>1</sup> Because of rounding, detail does not always add to totals.

<sup>2</sup> Full-time equivalents except for (1) national total 1910 and 1915 and (in part) 1920-48; (2) part of Federal series 1910 and 1915; (3) part of non-Federal series 1910-25.

<sup>3</sup> Excluding members of armed forces overseas. Bureau of the Census, Population—Special Reports, series P-45, No. 9 (Oct. 1945); Current Population Reports—Population Estimates, series P-25, No. 31 (Oct. 1949).

<sup>4</sup> Three-year averages, centered on the given year, except 1948.

<sup>5</sup> In 1940 dollars, using Dewhurst "price level index" to deflate. See America's Needs and Resources, p. 697; index for 1948 obtained by converting Bureau of Labor Statistics Consumer Price Index to 1940 base.

War and depression were the strongest forces underlying the rapid rate of Federal growth, with population increase and industrialization secondary. Federal development between 1910 and 1930 was largely identified with the growth of four functions—protection, the postal service, development programs for business and resources (including agriculture), and the regulation of business. Between 1930 and 1940 protection and welfare grew most rapidly, although the postal

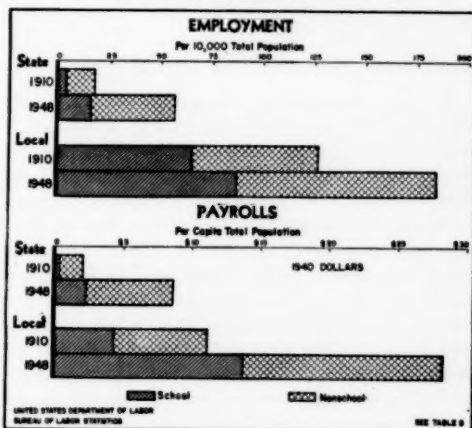
service had more employees than any other Federal function until 1941. Between 1940 and 1948 war activities were the chief element in Federal expansion, even when (as in the present series) data for the armed services are excluded.

Non-Federal governments usually lose in relative importance under war and boom conditions and gain under depression conditions. This is traceable less to changes in their own operations than to changes in the rest of the economy. Their employment and payrolls are comparatively steady, and therefore form low percentages of the respective national totals at times when the latter represent a high level of private activity, and vice versa.

### Changes in the Non-Federal Share

The growth of non-Federal governments is traceable primarily to the local level, with local governments predominant throughout the period and accounting for three-quarters of all non-Federal employment and payrolls in 1948. Growth at the State level was nevertheless spectacular, and the gap between the two was narrowed in 40 years, although it was not closed. Local governments employed 126 persons for each 10,000 inhabitants in 1910 and 184 in 1948, compared with 17 and 56 State employees, respectively (table 5). In spite of the 230-percent increase in State employment, local employment was still three-and-a-half

### State and Local Government Employment and Payrolls, 1910 and 1948





times the State total in 1948. State payrolls per capita rose 325 percent between 1910 and 1948, from \$2 to nearly \$9; local payrolls per capita rose 150 percent, from \$11 to \$28.

Education required about 40 percent of total non-Federal employment and 35 percent of payrolls before World War I, and slightly less than 45 percent of each by 1948. No other single function of State and local governments can compete with it in volume of employment or payrolls. (See chart and table 5.)

TABLE 5.—Non-Federal employment per 10,000 and payrolls per capita, by levels and functions, 1910-48<sup>1</sup>

Level and function	1910	1915	1920	1925	1930	1935	1940	1948
Number of employees <sup>2</sup> per 10,000 of total population <sup>3</sup>								
Non-Federal total.....	143	158	169	180	198	207	218	240
State governments.....	17	18	24	26	30	38	44	56
School.....	3	3	5	5	8	8	9	15
Nonschool.....	14	15	19	21	22	30	35	41
Local governments.....	126	140	144	154	168	179	174	184
School.....	64	68	70	78	82	80	84	87
Nonschool.....	62	72	74	76	86	90	90	97
City.....	40	47	47	48	58	50	56	61
Rural <sup>4</sup> .....	22	25	27	28	* 28	* 40	34	36
Annual payrolls <sup>5</sup> per capita of total population <sup>3</sup>								
Non-Federal total.....	\$13.40	\$15.77	\$13.08	\$19.82	\$25.34	\$29.03	\$32.85	\$36.82
State governments.....	2.03	2.39	2.11	3.13	4.05	5.72	6.98	8.69
School.....	.53	.44	.45	.74	1.07	1.14	1.46	2.33
Nonschool.....	1.70	1.95	1.65	2.40	2.98	4.58	5.52	6.36
Local governments.....	11.38	13.38	10.99	16.68	21.29	23.31	25.87	28.22
School.....	4.42	5.28	4.79	8.13	9.94	10.40	11.90	13.77
Nonschool.....	6.95	8.11	6.19	8.55	11.36	12.91	13.97	14.45
City.....	4.62	5.43	4.23	5.70	7.97	7.67	9.42	9.50
Rural <sup>4</sup> .....	2.35	2.68	1.96	2.79	* 3.39	* 5.24	4.55	4.95

<sup>1</sup> Because of rounding, detail does not always add to totals.

<sup>2</sup> Full-time equivalents except for part of local school data 1910-25.

<sup>3</sup> Excluding members of Armed Forces overseas; see table 4, footnote 3.

<sup>4</sup> By subtraction; 1930 and especially 1935 figures affected by source differences and lack of certain adjustments.

<sup>5</sup> In 1940 dollars; see table 4, footnote 5.

### Reasons for State and Local Development

Most of the striking increase in State activity between 1909 and 1948 occurred in three major functions—education, highway work, and institutional care. They were especially responsible for State expansion in the period 1910-30. Between 1930 and 1940, State employment and payrolls as a whole continued to grow because depression produced urgent needs which local governments could not meet. The States, with their own wider resources and with increased Federal aid, assumed new responsibilities for public assistance and for social insurance, maintained their highway work, and enlarged their services to agriculture; educational institutions did little more than keep pace

with population growth.<sup>5</sup> During World War II, State governments curtailed many operations, but by 1948 they had considerably surpassed their prewar scale of employment and payrolls except for highways,<sup>6</sup> and had enlarged their educational programs much more than ever before (table 5).

After 40 years and in spite of shifts and changes, education, institutional care, and highways still accounted for 60 to 70 percent of State employment and payrolls. Their dominance was not seriously challenged by services added or developed in the meantime. The next largest functions were general control, unemployment insurance and the employment services, and programs for the development of resources, including agricultural services. Public assistance work was relatively more important from 1933 to 1936 than later, but still in 1948 contributed 3 percent of the respective State totals.

The 46-percent increase in local government employment per 10,000 and the 150-percent increase in payrolls per capita between 1910 and 1948 (table 5) are primarily traceable to the influences affecting city growth, and especially city schools, for two reasons: (1) education is today and has been since at least 1909 the largest single function of American local governments, as here measured; and (2) cities together with the special districts which serve them employ more workers and spend more money for payrolls than any other group of governments, State or local. It was not until 1941 or 1942 that Federal civilian employment and payrolls exceeded those of cities. City schools and urban school districts account for the larger part of the local education total, and other city functions for the larger part of the local nonschool total, with county services next in size in the nonschool category.

The major city functions, in order of number of employees in 1940, were education, police and fire protection, enterprises, highways, general control, and sanitation. The major county functions were general control, highways, and institutional care.<sup>7</sup>

The greater part of the net 1909-48 increase in local employment and payrolls relative to population occurred before 1930, and education was the chief contributing factor. Underlying the development of the public school system were population increase, urban expansion, the strengthening of



compulsory attendance laws, enlarged school programs and higher standards, and a strong demand for training above the elementary minimum. One striking result was the rapid rise of public high schools. Nonschool functions which responded to population growth and urbanization and which also did much to raise the local total were highways, sanitation, protection, and general control.

In the 1930's, local activities increased very little in per capita terms because depression curtailed city growth and strangled local finances; suburban decentralization also began to affect the finances and services of the larger cities. However, compared with private economic activity, local government employment and payrolls were not depressed at all, and consequently increased as percentages of the respective national totals.

Between 1940 and 1945, local growth was checked by war, which prevented capital expansion and drained off personnel to other fields. A strong local upward movement between 1946 and 1948 is traceable to renewed city growth and wartime birth rates, to the effort made to catch up on postponed improvements, to high levels of economic activity in general, and to Federal and State fiscal aid, which was by 1948 about 12 percent higher in constant 1940 dollars per capita than in 1942.

rolls resulting from the State, County, and Municipal Survey, a WPA project which was conducted by the Bureau of Labor Statistics from 1939 to 1943 and of which the author was director for 2 years. In 1945 the Bureau completed the SCM estimates for 1929-39, but did not undertake any analytical work with the material. See *Public Employment and Pay Rolls in the United States, 1929-39*, and *Post-War Implications, Monthly Labor Review*, Feb. 1945, pp. 243-60, reprinted as *Serial Bulletin No. R. 1732*; and *Employment and Pay Rolls of State and Local Governments 1929-1939*. The trend data used include not only the SCM figures but also published estimates and some unpublished materials prepared by the Office of Business Economics, U. S. Department of Commerce, and the National Bureau of Economic Research.

<sup>1</sup> U. S. Office of Business Economics, *National Income and Product of the United States, 1949*, Survey of Current Business, July 1950, tables 14 and 24. U. S. Bureau of the Census, *Public Employment in January 1951*, G-GE51, No. 1, April 1951.

<sup>2</sup> Employment figures from Census data as of April and October 1950, unadjusted for any part-time work. Bureau of the Census, *State Employment in 1950*, G-GE50, No. 5, August 1950, table 3; and *City Employment in 1950*, G-GE50, No. 6, April 1951, table 2.

The estimate of the number of governmental units is the writer's and is based primarily on Census and Office of Education data.

<sup>3</sup> The existence or absence of private educational facilities—in turn connected with per capita income—is also a factor in the extent to which State governments use their resources to provide higher education. The negative relationship seems to represent in some cases an effort to compensate for lack of private facilities or for limited economic ability (which keeps local government activity at a low per capita level), or for both.

<sup>4</sup> A detailed functional analysis of State employment and payrolls in 1929 and 1938, compiled from SCM materials, shows the net effects of changes occurring during the depression decade.

<sup>5</sup> State highway departments employed 178,000 persons and spent \$17 million on payrolls in October 1940, compared with 151,000 and \$28.4 million in April 1948. (Census data, with employment figures unadjusted for part-time work. In 1940 dollars, \$28.4 million become \$16.6.) Yet 42,000 miles of State roads were built in 1948 as against 33,000 in 1940. By April 1950, the number of highway employees had reached 171,000. While comparison of April with October data is unsatisfactory, it nevertheless suggests that highway construction and maintenance have become more mechanized since the war than before, and that private contractors have been doing a greater proportion of State work than formerly.

<sup>6</sup> For functional analysis and for detailed distributions as of 1903, 1940, 1946, and 1947, based on Census data and Fabricant's work, see Brainerd, *op. cit.* (p. 87). No detailed functional estimates for all cities or all counties have been published by the Bureau of the Census for any year since 1940; figures for the 37 largest cities are published annually.

<sup>7</sup> "General control" includes legislative and judicial work, as well as general administrative and financial activities.

<sup>1</sup> Summary of major findings in a Ph.D. thesis by Carol P. Brainerd: *Non-federal Governments and Their Growth 1909-1948; a Study of the Employment and Payrolls of State and Local Governments (1950)*. Typed copies are available at the library of the University of Pennsylvania. Unless otherwise stated, all data in the present article are from this study.

The analysis is based in large part upon estimates of employment and pay-



# Australia's Labor Problems and Policies, 1951<sup>1</sup>

Ann S. Ritter\*

DURING the past decade, Australia's industry has expanded to the limits of the country's current labor force; further expansion is conditioned upon greater immigration, higher productivity, and improved industrial relations.

Shortages of manpower are aggravated by the increasing demands of the defense program. A sharp rise in incomes because of higher export prices has enhanced inflationary pressures.

Government policies and programs have concentrated on preventing Communist activities from disrupting the economy, and on expanding the labor force through increased immigration. Trade-unionists and the Australian Labor Party have demanded more drastic inflationary controls. Labor has not favored either incentive wage systems or extension of the basic workweek beyond 40 hours as a means of raising production.

Communist leaders in certain important trade-unions, utilizing for their own ends labor's desire to maintain and extend economic gains, have staged a succession of strikes, paralyzing coal mining and the water front for periods of several weeks at a time in the years 1949-51. Some of these stoppages were checked by Government intervention. In early 1951, after the Government invoked the Crimes Act, the dockers returned to their jobs, pending arbitration of the issues in disputes.

The Communist-led strikes as well as general economic difficulties were factors in the decision to hold national elections in April 1951, 20 months ahead of schedule. The Government's legislative program had been virtually stopped by the Labor

Party majority in the Senate. In the elections, the Liberal-Country Party Government, which based its campaign on the issue of communism, won its objective—control of the Senate—although its majority in the House was reduced. The Labor Party contended that present laws are adequate to deal with the Communist problem, and campaigned on the issue of inflation, advocating Federal regulation of prices and profits.

## Organized Labor and the Arbitration Court

Union membership is high in Australia (in 1950 over half of the 2.5 million wage and salary earners were organized) due in part to the benefits obtained by union members from the awards of the Commonwealth Court of Conciliation and Arbitration.

The majority of organized labor has for many years accepted the principle of settling industrial disputes by conciliation and arbitration. The Arbitration Court was established in 1904, with the support of organized labor. The enabling act provides for the registration of unions and employers, and gives them legal entity and the right to sue and be sued in the Federal courts. Either employers or employees may submit disputes for consideration. The court has the power to make awards or registered agreements the "common rule" for the whole industry. It has jurisdiction over interstate industrial disputes and disputes in State- or Commonwealth-controlled industries, while courts or wage boards function in each of the States. When a Federal and State award conflict, the former prevails.

Existing machinery for settlement of disputes was made speedier and more informal by 1947 and 1949 legislation. The court's jurisdiction was limited to the determination, for both men and women, of standard hours, the basic wage, and annual leave. It is the final determinant of questions of law under the Arbitration Act.

To enforce observance of its awards, the Federal Court may impose fines on organizations or individuals; order compliance with an award which has not been observed; enjoin any organization or person from committing or continuing any contravention; or cancel the registration of an organization which willfully neglects to obey an order of the court. This action deprives the members of the benefits of the award.



**Trade Unions.** About 850,000 trade-unionists pay affiliation fees to the Australian Council of Trade Unions (ACTU), and about 160,000 to the independent Australian Workers' Union (AWU). In addition, there are a number of smaller independent unions.

The ACTU, founded in 1927, is Australia's only national federation. It meets in conference every 2 years and between conferences is governed by an executive board consisting of two delegates from each of the six States, a president, two vice presidents, and a secretary all elected by the conference. The secretary, and since 1949 the president, are employed on a full-time basis. The salary and allowances of the paid officers are fixed by the executive [governing] board and from time to time revised to conform with changes in the basic wage rates.

The independent AWU is the largest and oldest national union in the country. It developed among the sheep shearers, and now covers a wide membership including metal miners, rural, and general workers. It has remained independent largely because of fears that other unions would attempt to restrict its jurisdiction.

During 1950-51, the Australian trade-union movement, traditionally isolationist, made significant progress toward closer cooperation with trade-unions in other countries and toward building fraternal relations with unions in the United States.

Previously, foreign travel by non-Communist trade-unionists had been almost entirely restricted to worker delegates, named by the ACTU, to the International Labor Organization. In 1950, however, trade-union members indicated a growing interest in international affairs. For example, the AWU general secretary visited the United States as a guest of the Free Trade Union Committee of the American Federation of Labor, the first such fraternal visit between the two countries; and the ACTU is to send two delegates to the AFL September 1951 convention in San Francisco.

ACTU, which had been a member of the World Federation of Trade Unions since its foundation in 1945, disaffiliated in 1949. It has thus far been deterred from joining the International Confederation of Free Trade Unions (ICFTU) by the relatively heavy affiliation fees.

The AWU, in accordance with a resolution voted

at its January 1951 convention, subsequently submitted an application for affiliation with the ICFTU. No action by ICFTU had been reported by the end of June.

### **Trade Unions and the Labor Party**

The close link between trade-unions and the Australian Labor Party is as old as the party. In the 1890's, the unions initiated the political labor movement to win support for their industrial aims. Labor parties in New South Wales and Queensland set the pattern for the four other states. The National Australian Labor Party came into existence in 1901, following establishment of the Commonwealth earlier in that year.

Individual State Labor Party executives (rather than the national executive) tend to dominate the party—they control the membership dues collected by local branches, manage expenditure of State conference funds, are responsible for publicity and educational activities, and pass upon local candidates for Federal and State legislatures. State conferences meet annually to draw up platforms, and the Federal platform, drawn up every 3 years, is largely derived from those of the States.

Trade-union members make up the bulk of the party membership and contribute most of the party funds. National or local trade-unions may affiliate directly with the party, paying dues based on membership. In the State of Western Australia, the local political leagues and the trade-unions are represented in a State executive, which acts as both a trade-union and a political executive. The Labor Party held office in Australia from August 1941 until December 1949, when a coalition of the Liberal and Country Parties was elected.

### **Industrial Disputes and Communist Activity**

The Arbitration Court is authorized by law to enforce its awards when breached by strikes or lock-outs, but has very rarely done so. Man-days lost because of industrial disputes have been higher during postwar years than in the period 1935-44. An Australian study<sup>2</sup> covering the period 1939-48 indicates that man-days lost in Australia reached the wartime peak (2,120,000) in 1945, and remained at a high level. The 5-year annual average of man-days lost was 1.7 million in Australia (1945-



49) compared with 2.2 million in Great Britain, which has a labor force 7 times larger. This indicates a comparatively high degree of industrial unrest in Australia.

During the depression of the 1930's, Communist leaders established a militant minority movement concentrating on key unions in the metal, mining, building, and transport groups, and in 10 years gained control of the national unions of ironworkers, seamen, dockers, carpenters, and coalminers. Since the end of World War II, however, trade-unionists have offered increasing resistance to Communist elements within their groups. In some instances, Communist domination has been removed or decreased; rank-and-file unionists have been encouraged to take a constructive interest in union affairs and to refuse to engage in strikes for political ends.<sup>3</sup> Some Labor Party State branches formed "industrial groups" in 1947 to combat communism in the unions. Their function is to back candidates for union office who are Labor Party supporters and who follow the industrial program and policy of the Labor Party.

After the costly and unsuccessful coal strike of 1949, Communist influence seemed to have waned, but it reappeared in early 1951, when an overtime ban was imposed by the Waterside Workers' Federation, and the Miners' Federation called 1-day-a-week stoppages to protest a court award. Neither of these recent strikes won support from the trade-union movement in general: the ACTU recognized the merit of both the dockers' and miners' economic claims, but warned that they would not become involved in disputes which were either used or extended to further the Communist Party's policy of disruption of the economy. The Government proclaimed a State of Emergency on the waterfront under the Crimes Act, and soon thereafter, both waterside and mine workers agreed to return to work and to seek a review of their claims through legal channels.

The Government's Communist Party Dissolution Bill passed both Houses of Parliament in the fall of 1950, despite Labor Party demands in the Senate for amendments; it was declared invalid by the High Court in March 1951. The Liberal-Country coalition anticipates holding a referendum looking toward a constitutional amendment to increase the Government's powers to deal with communism.

### Manpower Situation

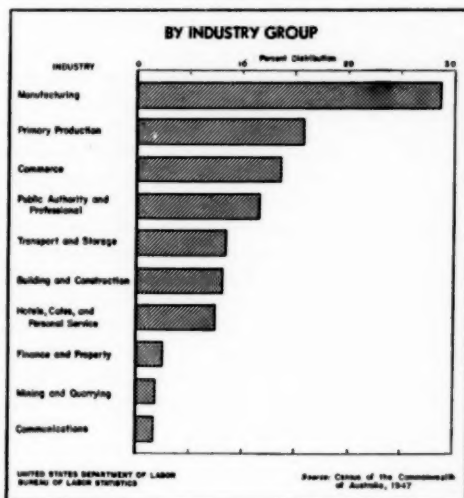
Unemployment among trade-union members, based on a 25 to 30 percent sample of all unionized wage and salary earners, has remained at less than 1 percent since November 1948—except for the 1949 coal-strike period. In fact, at the end of 1950, there were 120,821 unfilled job vacancies and only 8,265 unemployed persons registered at the public employment exchanges.

The minor "industrial revolution" which occurred during and after World War II has caused a shortage of manpower. During the past 10 or 12 years, secondary industries have grown faster than ever previously recorded in Australia. By June 1949, the number of factories in operation (40,000) was nearly double that in June 1939. Expansion in steel, coal, plastics, aircraft and heavy engineering, shipbuilding, and machine tools has resulted in an extensive shift of employment from agriculture to manufacturing and related activities. The number of wage and salary earners employed in manufacturing rose from 625,000 in July 1939 to 950,000 in September 1950—an increase of over 50 percent.

The 1947 distribution of the labor force<sup>4</sup> (3,196,431) is indicated in the accompanying chart.

The Commonwealth Statistician estimated that Australia's population in September 1950 was

The Labor Force in Australia, 1947





8,241,593. Almost 3.5 million were in the labor force. There were an estimated 2,595,000 wage and salary earners at the end of 1950 (an increase of more than 3 percent in a year, roughly equivalent to the population increase). Nevertheless, the country's severe labor shortage persisted.

Factors contributing to the manpower shortage are the opposition of certain Communist-dominated unions to recruiting labor<sup>5</sup> and the reluctance of Australian workers to approve incentive pay systems. There is a high turn-over rate in industry (particularly among manual workers) because of constant competition for labor—workers shift from job to job under strong inducements from competing employers.

As a long-range measure to overcome labor shortage, as well as for reasons of defense and security, the Government in 1945 embarked upon an immigration program with a goal of 70,000 new settlers a year. In early 1950 the number was stepped up to 200,000 a year for 10 years. Preliminary figures indicate that 153,685 permanent immigrants entered during 1950.

### **Inflation Control, and Productivity**

Increased immigration, though it may ultimately benefit production, is currently adding to consumer demand and thus is one of the factors aggravating inflationary pressures in Australia.

Rapid industrialization, a sharp rise in income due to high-level export prices of raw materials, and an inability to produce or import enough consumer goods to satisfy the demand—all influence the situation. From time to time, Communist-led strikes have interrupted important economic activities such as mining and shipping. In 1950, strikes cost an estimated 1.3 million tons of coal in a year when power cuts were necessitated by shortage of coal.

The Liberal-Country Party Government, which had been elected in 1949 on a "no controls" platform, stressed during the April 1951 election campaign, that Communist disruptive activity is a principal cause of the inflationary spiral. The Labor Party, contending that existing law (e. g., the Crimes Act) is adequate to deal with the Communists, campaigned on the issue of inflation, advocating Federal regulation of prices and profits.

Direct manpower controls, which might serve to redistribute the labor force, are opposed for

the present by both the Government and Opposition Parties, although the Government believes that expansion of the defense services under present employment conditions may require some selective controls. Under the Australian Constitution, however, the Federal Government can only impose economic or manpower controls under its defense powers, which as interpreted by the High Court, are limited to a war emergency.

Advice on manpower needs for defense is given the Federal Cabinet by the National Resources Security Board, set up in late 1950.

The measures thus far taken to stem inflation have been limited to (1) a Government deduction of 20 percent of woolgrowers' proceeds at the point of sale, which is held as an advance payment of income tax; (2) Government subsidy to hold down prices of Australian-made woolen goods; (3) reimposition of capital issues control which had been abandoned in 1950; (4) more selective bank credit policy; and (5) limited price control by the State governments.

A Government statement in the fall of 1950 pointed out that diversion of the country's men and resources for defense purposes will of necessity reduce output of civilian goods unless productivity is stepped up. The Government appealed to both management and labor to respond.

Government advisers and employer spokesmen agree that the rate of increase since 1938 has been much lower in Australia than in either the United Kingdom or the United States. In the absence of adequate statistical measurement, it is impossible to cite reliable figures on the actual annual rate of productivity increase, but it is generally agreed that it is below 1 percent.

The ACTU has announced its "support" for increased production and its president has appealed to unionists on the ground that increased wages will lead to a real improvement in living standards only if combined with increased productivity. His suggestion of a conference with representatives of employer organizations to study the problem has so far not been implemented.

### **Wages, Earnings, and Cost of Living**

Australian workers have received direct wage increases and extended social service benefits<sup>6</sup> in recent years. The basic workweek was reduced



from 44 to 40 hours in 1948 throughout the Commonwealth.

Wage rates and hours of work have long been determined by the Commonwealth Court of Conciliation and Arbitration, or by courts or wage boards in the States. In the current labor scarcity, many employers pay wages above the level of the court awards.

The "needs basic wage"<sup>7</sup> was first set in an award of 1907 and has since undergone several changes. In October 1950 the court authorized an increase of £1 a week for male workers, effective in December; the basic rate for females was then raised from 54 to 75 percent of the male rate.<sup>8</sup>

In addition to the "needs basic wage", the typical wage rate is composed of additional increments: (1) a prosperity loading; (2) a war loading; and (3) a margin for skill. In 1950, the Arbitration Court standardized the prosperity loading (first awarded in 1937) at 5 shillings and consolidated it with the needs basic wage. War loadings, granted by the court during World War II principally in war industries, still remain in effect. In recent years, some adjustments in the margins for skill have been permitted to compensate for high living costs. Differentials between skilled and unskilled workers have grown narrower.

*Australia, retail price "C" series index for 6 capital cities and weekly wage-rate indexes for 6 States*

[June 1936-June 1939=100]

Fiscal years	Retail price index, "C" series <sup>1</sup>	Weekly wage-rate indexes, adult males	
		Nominal wage	Real wage <sup>2</sup>
1936-39 .....	102.9	104.4	101.5
1943-44 .....	127.0	132.9	104.6
1944-45 .....	127.0	133.3	105.0
1945-46 .....	127.8	134.3	105.1
1946-47 .....	130.9	142.3	108.7
1947-48 .....	130.3	136.5	112.3
1948-49 .....	132.8	175.7	115.0
1949-50 .....	166.9	191.3	114.7
1949:			
First quarter .....	153.8	177.1	115.1
Second quarter .....	158.2	181.8	114.9
Third quarter .....	161.0	185.7	115.3
Fourth quarter .....	165.3	189.1	114.4
1950:			
First quarter .....	168.2	192.7	114.6
Second quarter .....	173.0	197.6	114.2
Third quarter .....	177.3	202.6	114.3
Fourth quarter .....	185.3	229.0	123.6

<sup>1</sup> Includes food and groceries, rent, clothing, and miscellaneous goods and services.

<sup>2</sup> Index of nominal weekly wage rates for adult males divided by "C" Series Retail Price Index number.

Source: Monthly Review of Business Statistics, Commonwealth Bureau of Census and Statistics, Canberra, February 1951.

This is considered to act as a disincentive impeding recruitment and training in skilled trades and retarding extra effort (overtime).

The needs basic wage is automatically adjusted quarterly according to regional variations in cost of living, measured by the "C" series index (1923-27=100) every quarter. (See table.)

At the end of 1950, average weekly earnings<sup>9</sup> were £11 3s. 7d. (about \$25 in U. S. currency, at the official exchange rate of £1=\$2.24) an increase of 15 percent during the year, and 94 percent over 1939. The course of retail prices and wages is shown in the accompanying table for 1938-39 through 1950.

The figures indicate that the greater part of the price rise followed the end of the war. Increases were accentuated by devaluation of the Australian pound in September 1949 and by the Korean conflict. The cost-of-living index ("C" series) experienced its biggest rise since the early years of World War II between the fourth quarter of 1949 and the fourth quarter of 1950, showing the effects of the Korean war on prices of food and durable consumer goods. "Real" wages increased 13 percent between mid-1939 and mid-1949. Between the third and fourth quarters of 1950, the real wage index advanced substantially, reflecting the recent basic wage increase as well as automatic cost-of-living adjustments.

<sup>9</sup>Of the Bureau's Division of Foreign Labor Conditions.

<sup>1</sup>Information based on reports of U. S. Labor Attachés in Australia: Herbert E. Weiner, 1949-51; Alexander Johnpoll, 1948-49; Webster Powell, 1945-48; Monthly Review of Business Statistics, Commonwealth Bureau of Census and Statistics, Canberra; and various other sources.

<sup>2</sup>The Pattern of Industrial Disputes in Australia, The United States, and Great Britain, Research Service, Sydney, February 1950.

<sup>3</sup>For further discussion of Communist influence, see Monthly Labor Review, November 1950 (p. 580), Action Against Communism in Australian and New Zealand Unions; Notes on Labor Abroad, No. 19, March 1951 (p. 15), Communist-Led Industrial Unrest in Australia and New Zealand.

<sup>4</sup>Includes employers, self-employed, wage and salary earners, helpers not on wage or salary, and persons not at work on day of census who presumably are counted as labor force in last job.

<sup>5</sup>The Waterside Workers' Federation, for example, limits its membership to insure continual employment for its members, and accepts new applicants only when the federation finds that the employment situation appears to warrant an increase.

<sup>6</sup>Family allowances, for example, were extended to include the first child, old-age pensions were increased, and a contributory health benefit scheme established.

<sup>7</sup>The concept of the basic wage is a wage at which a breadwinner can support a family at a decent and appropriate level, which is within the wage-paying capacity of the economy.

<sup>8</sup>For further detail, see International Labor Review, February 1951 (p. 149), The Claim for £10 Basic Wage in Australia.

<sup>9</sup>Calculated by the Commonwealth Bureau of Census and Statistics, the earnings figure represents total wages divided by total civil employment expressed in "male units"; i. e., total male employment plus 45 percent of total female employment.



# Summaries of Studies and Reports

## Characteristics of 12,000 Labor-Management Contracts<sup>1</sup>

APPROXIMATELY 12,000 current labor-management agreements, filed with the Bureau of Labor Statistics at the close of 1950, covered wages and working conditions for over 7,000,000 American workers in all sections of the country and virtually in every industry. Many covered only a handful of employees, others tens of thousands. Affiliates of the American Federation of Labor and the Congress of Industrial Organizations were represented by several thousand agreements each. Other agreements were negotiated by unaffiliated or "independent" labor unions—some national in scope, others confined to a single plant or employer.

The information on which this study is based is contained in these files, which the Bureau has maintained almost from its inception in 1884. Significantly, the Congress, in enacting the Labor Management Relations Act of 1947, recognized the continuing importance of such data and specifically designated the Bureau to keep a file of collective-bargaining agreements and "actions thereunder settling or adjusting labor disputes." These files, by law, are open, "under appropriate conditions," for inspection; in addition, the Bureau uses them constantly for regular and special analyses of labor-management contract provisions.

### Industry Distribution<sup>2</sup>

Seventy percent of the 11,917 agreements related to factory workers. Nearly 5,000,000 employees were covered by these contracts.

Two industry groups—food and machinery (except electrical)—had the greatest number of contracts, over 900 each. These industries—characterized by many scattered and, on the whole, relatively small enterprises—accounted for between 350,000 and 400,000 workers each.

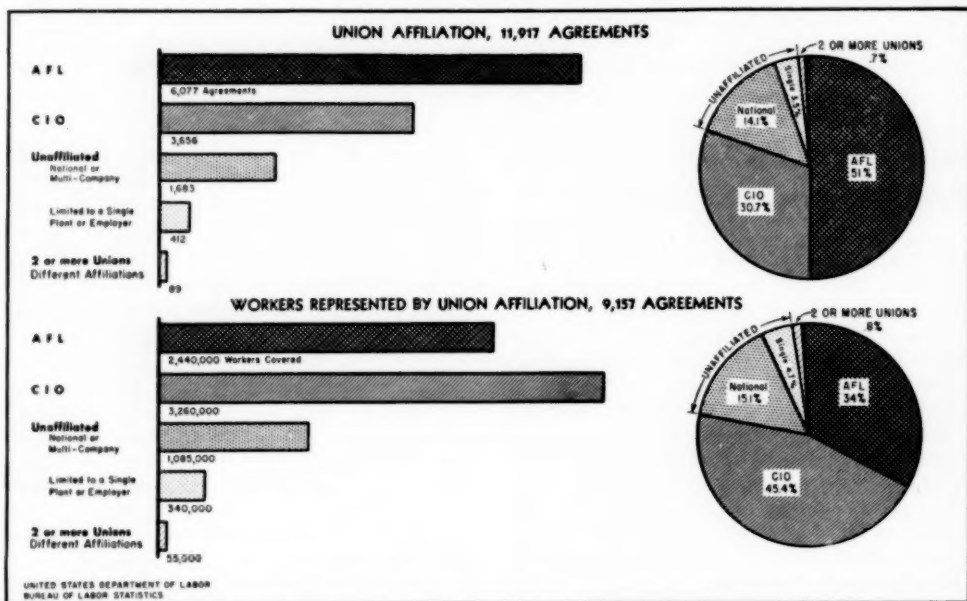
Over 900,000 workers, on the other hand, were represented by 424 agreements in the transportation-equipment group of industries—automobiles, aircraft, shipbuilding, etc. More than 600,000 workers were covered by contracts in primary metals industries—steel works, foundries, and the smelting and refining of nonferrous metals. Each

TABLE 1.—Distribution of agreements by industry

Major industry group	Agreements on file		Agreements with employment data available	
	Number	Percent	Number	Approximate workers covered (thousands)
All industries.....	11,917	100.0	9,157	7,180
<i>Manufacturing.....</i>	<i>8,419</i>	<i>70.6</i>	<i>6,808</i>	<i>4,780</i>
Ordnance.....	19	.2	17	10
Food and kindred products.....	908	8.1	632	363
Tobacco manufacturers.....	62	.5	53	48
Textile mill products.....	414	3.5	367	288
Apparel and other fabric products.....	194	1.6	147	296
Lumber and wood products.....	328	2.8	265	76
Furniture and fixtures.....	197	1.7	168	65
Paper and allied products.....	415	3.5	353	165
Printing and publishing.....	347	2.9	228	63
Chemicals and allied products.....	686	5.7	503	153
Products of petroleum and coal.....	251	2.1	216	91
Rubber products.....	158	1.3	133	153
Leather and leather products.....	273	2.3	227	115
Stone, clay, and glass products.....	463	3.8	376	137
Primary metal industries.....	715	6.0	630	620
Fabricated metal products.....	864	7.2	725	301
Machinery (except electrical).....	921	7.7	809	370
Electrical machinery.....	381	3.2	323	385
Transportation equipment.....	424	3.6	328	907
Professional and scientific instruments.....	127	1.1	113	52
Miscellaneous manufacturers.....	212	1.8	175	52
<i>Nonmanufacturing.....</i>	<i>3,498</i>	<i>29.4</i>	<i>2,349</i>	<i>2,400</i>
Agriculture and fishing.....	32	.3	17	7
Metal mining.....	76	.6	65	34
Coal mining.....	13	(1)	13	475
Crude petroleum and natural gas.....	69	.6	61	11
Nonmetallic mining.....	82	.7	60	8
Contract construction.....	258	2.2	112	342
Local railways and busines.....	165	1.4	146	135
Trucking and warehousing.....	267	2.2	183	188
Other transportation.....	169	1.4	136	39
Water transportation and allied services.....	257	2.2	160	165
Communications: Telephone and telegraph.....	114	1.0	87	415
Public utilities.....	316	2.7	279	198
Wholesale trade.....	506	4.2	328	54
Retail trade.....	567	4.7	318	173
Finance, insurance, and real estate.....	60	.5	40	20
Services.....	586	4.9	326	184
Government.....	31	.3	28	2

<sup>1</sup> Industry-wide agreements.  
<sup>2</sup> Less than a tenth of 1 percent.



Chart 1. Agreement Distribution by Union Affiliation<sup>1</sup>

<sup>1</sup> This distribution of agreements and worker coverage, by union affiliation, is based upon contracts filed with the Bureau of Labor Statistics pursuant to the provisions of the Labor Management Relations Act. It cannot be construed as an indication of the actual collective-bargaining coverage of the different union groups. As indicated in appropriate footnotes at the end of the article, the Bureau does not collect agreements covering railroad and air transport employees while coverage in several other industries (e. g., con-

struction) is underrepresented. Also, recent changes in affiliation, such as the reaffiliation of the International Association of Machinists with the AFL and some of the shifts in agreement coverage resulting from the expulsion of certain unions from the CIO, are not reflected by these data. The net effect of these limitations of the data is to understate, relatively, the actual collective-bargaining coverage of various union groups and particularly the employment coverage of unions affiliated with the AFL.

of these two industry groups—transportation equipment and primary metals—includes some of the largest companies in the country.

Nonmanufacturing industries as a group were represented by 3,498 contracts or 30 percent of the total. Retail trade, wholesale trade, and various services—restaurants, hotels, laundries, barber shops, etc.—were covered by 500 agreements each. In terms of employment coverage, however, coal mining and communications (telephone and telegraph) were the largest, each accounting for nearly a half million workers.

Relatively few agreements, covering limited groups of workers, were found in such nonmanufacturing groups as agriculture and fishing, finance and insurance, and government services. The latter group is characterized, however, by the absence of negotiated agreements owing to the nature of many types of public employment.

### Unions Involved

Slightly over half (51 percent) of the contracts were negotiated by national and international unions affiliated with the AFL. These agreements were widely distributed among 86 unions, including directly chartered federal labor unions. In terms of worker coverage, approximately 2,500,000 employees were represented—almost equally distributed between manufacturing and nonmanufacturing industries (table 2).

Affiliates of the CIO accounted for 3,656 agreements covering over 3,200,000 workers. Most of this coverage (84 percent) was concentrated in the mass-production manufacturing industries.

Agreements of unaffiliated or independent unions are filed by the Bureau under two different categories: (1) those in which jurisdiction generally was Nation-wide in scope; (2) those in which



TABLE 2.—Distribution of agreements by union affiliation<sup>1</sup>

Union affiliation	All agreements on file			Manufacturing—			Nonmanufacturing—		
	Total	With employment data available		Total	With employment data available		Total	With employment data available	
		Number	Workers covered (thousands)		Number	Workers covered (thousands)		Number	Workers covered (thousands)
Total.....	11,917	9,157	7,150	8,419	6,808	4,730	3,498	2,340	2,450
American Federation of Labor.....	6,077	4,400	2,440	3,659	2,834	1,240	2,418	1,566	1,200
Congress of Industrial Organizations.....	3,656	2,929	3,260	3,065	2,522	2,740	571	407	520
Unaffiliated unions (national or multi-company).....	1,683	1,422	1,085	1,346	1,186	530	337	236	555
Unaffiliated unions (limited to single plant or employer).....	412	331	340	256	205	180	153	126	160
Two or more unions—Different affiliations.....	89	75	55	70	61	40	19	14	15

<sup>1</sup> See footnote 1 to chart 1.

activities were limited to a single plant or employer. The first category accounted for about a seventh of the total agreements on file<sup>3</sup> and was representative of over a million workers. Under the second category there were slightly more than 400 contracts; these represented between 300,000 and 400,000 workers and were distributed over a wide variety of industries, both manufacturing and nonmanufacturing. In addition to the two clearly defined categories, 89 contracts were jointly negotiated by an independent union and one or more AFL affiliates.<sup>4</sup>

### Dispersion of Unions in Industries

Despite popular conceptions, or identification of many unions with a specific industry, a substantial number of unions negotiate contracts in many different industries. Thus, in four major manufacturing industry groups—fabricated metal products, machinery (except electrical), chemicals, and foodstuffs—more than 50 unions were found to have negotiated contracts with one or more establishments in each of these industries.<sup>5</sup>

Even greater dispersion was found in two of the nonmanufacturing groups—services and retail trade. The 85 unions represented in the service group of establishments included approximately half (55) of all AFL affiliates, 19 CIO affiliates, and 11 independent unions. Coal mining was the only significant industry in which one union (the United Mine Workers, Ind.) represented the great bulk of the workers.

The predominance of a union—in terms of workers covered—also was reflected in a number of other industries. In some instances, the union clearly represented a majority of the workers for

whom employment data were available; e. g. women's apparel (AFL Ladies' Garment Workers' Union); rubber (CIO Rubber Workers); and steel (CIO Steelworkers). In other industries—construction, printing, and paper and allied products, for instance—several AFL affiliates largely shared the field. AFL craft unions were, of course, outstanding for their representation in many different manufacturing and nonmanufacturing industries.

### Workers Covered

From the standpoint of the number of workers normally covered by a collective-bargaining agreement, the Bureau's file discloses typical American

Chart 2. Distribution of Agreements and Workers by Contract Coverage

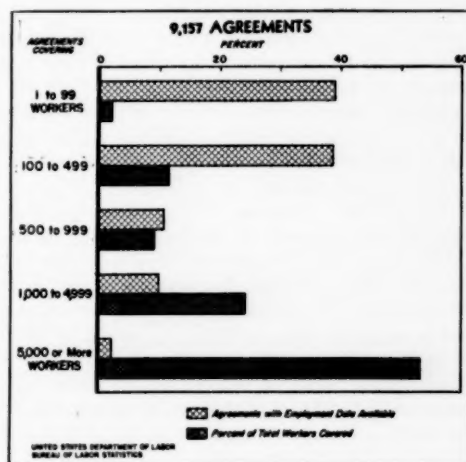




TABLE 3.—Distribution of agreements by workers covered

Agreement coverage	Agreements with employment data available			Workers covered		
	Number	Per cent	Cumulative per cent	Number	Per cent	Cumulative per cent
Total.....	9,157	100.0	.....	7,180,000	100.0	.....
1 to 24 workers.....	1,272	13.9	13.9	15,000	0.2	0.2
25 to 49 workers.....	966	10.5	24.4	34,600	.5	.7
50 to 99 workers.....	1,331	14.5	38.9	92,000	1.3	2.0
100 to 199 workers.....	1,611	17.6	56.5	223,000	3.1	5.1
200 to 299 workers.....	901	9.8	66.3	214,000	3.0	8.1
300 to 399 workers.....	617	6.7	73.0	204,000	2.8	10.9
400 to 499 workers.....	417	4.6	77.6	179,000	2.5	13.4
500 to 999 workers.....	973	10.6	88.2	651,000	9.1	22.5
1,000 to 1,999 workers.....	575	6.3	94.5	770,000	10.7	33.2
2,000 to 2,999 workers.....	166	1.8	96.3	389,000	5.4	38.6
3,000 to 3,999 workers.....	101	1.1	97.4	331,000	4.6	43.2
4,000 to 4,999 workers.....	51	.6	98.0	248,000	3.5	46.7
5,000 to 9,999 workers.....	85	.9	98.9	595,000	8.3	55.0
10,000 to 19,999 workers.....	55	.6	99.5	800,000	11.1	66.1
20,000 to 49,999 workers.....	25	.3	99.8	942,000	13.1	79.2
50,000 to 99,999 workers.....	6	.1	99.9	474,000	6.6	85.8
100,000 and over.....	5	.1	100.0	1,019,000	14.2	100.0

characteristics: (1) a multiplicity of contracts covering, on the average, relatively few employees of small business enterprises, and (2) a concentration of the bulk of the worker coverage in relatively few agreements negotiated with the very large corporations (table 3).

Approximately 1 out of every 4 contracts covered less than 50 workers and 3 out of every 4 covered less than 500 workers. In the aggregate, however, these contracts accounted for only about a seventh (13.4 percent) of all the workers.

By contrast, contracts negotiated with large employers (or employer associations) hiring 5,000 or more employees accounted for over half (53.3 percent) of the 7,180,000 workers for whom employment data were available. Five of these contracts—each representative of 100,000 or more workers—covered 14.2 percent of the workers. This was a slightly greater employment coverage than that recorded for the 7,115 agreements, less than 500 workers each.

Among the various manufacturing groups, about half of the contracts in foodstuffs, printing and publishing, and chemicals covered less than 100 workers each. The smaller agreements (involving fewer than 50 employees) were most frequent in such nonmanufacturing fields as trucking, trade, and the various services—barber shops, laundries, restaurants, and building maintenance. For some of these, of course, the agreement only covered a fractional cross section of the total employed in the establishment or plant.

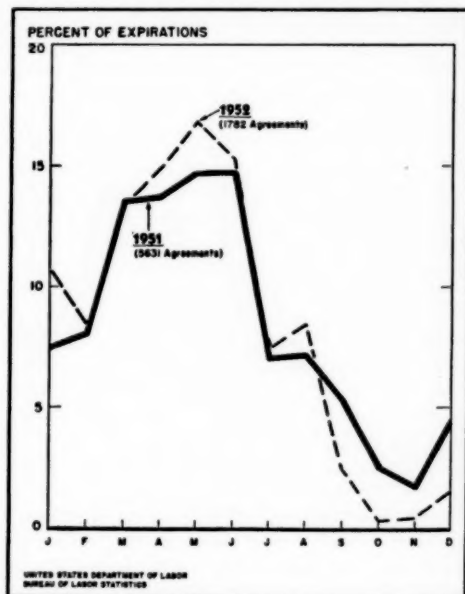
Larger-scale bargaining units, as typified by contracts representative of 500 or more workers, occurred most frequently in manufacturing industries. Thus, of the contracts on file, 44 percent of those in transportation equipment and 37 percent in textiles were in this category. In nonmanufacturing, over half of the 87 telephone and telegraph agreements covered employee units of over 500 workers.<sup>6</sup>

### State and Regional Distribution

The more industrialized areas, such as the Middle Atlantic and Upper Midwest, showed the heaviest concentration of agreements and worker coverage. Together, these two regions, comprising only 8 States in all, accounted for almost half (47.5 percent) of all agreements and about the same percentage of workers covered.

In terms of individual States, California and New York were each represented by over 1,000 agreements; Pennsylvania was next with 935. Relatively few agreements (less than 25) were on file for each of 5 States—the Dakotas, Mississippi, Idaho, and Wyoming.

Chart 3. Monthly Pattern of Agreement Expirations





An extremely significant group of contracts (499) were classified as "interstate." These agreements cover plants of the same employer, or groups of employers, located in more than one State. Many of the largest contracts, covering 2,610,000 workers (over a third of the total) fell into this category. Data were not available, however, to allocate these workers on a plant-by-plant basis; such information undoubtedly would have materially increased State and regional coverage in the more industrial areas where most of these plants are located.

Among the agreements included in this "interstate" category were, for example, the following—each covering sizeable groups of workers: AFL and CIO packing-house workers, with several of the large meat packers; the Full Fashioned Hosiery Manufacturers of America, with the Hosiery Workers (Ind.); Merchants' Ladies' Garment Association, and the AFL Ladies' Garment Workers' Union; Carnegie-Illinois Steel Co., and Steelworkers (CIO); Central States Area Employers Association, and Teamsters (AFL); Southwestern Bell Telephone Co., and Communications Workers (CIO); the Pacific Maritime Association, with several separate contracts with AFL, CIO, and unaffiliated unions; and the national bituminous coal agreement with the United Mine Workers (Ind.).

### Expiration Dates of Agreements<sup>7</sup>

Despite the tendency during the past year for some unions and employers to negotiate a long-term contract of 3, 4, or 5 years' duration, most agreements are subject to annual renegotiation. Analysis of the agreements revealed that 71 percent of the contracts expire in 1951, 23 percent in 1952, and 2 percent in 1953. Of the remaining agreements, a few were negotiated for longer periods (24 in 1954; and 60 in 1955 or later); in addition, several hundred were "open end" contracts, bearing no fixed date of termination.

Seasonal or other factors also appear to operate within any particular year. Thus, the most active months for collective-bargaining negotiations are March, April, May, and June. During these 4 months, over half of the contracts, due to expire in 1951 and in 1952, were subject to renegotiation.

Significant and important deviations from this mass pattern are not unusual, however. For example, many of the large agreements in the basic steel industry are scheduled to expire December 31, 1951. A number of aircraft industry agreements likewise expire in the closing months of 1951.<sup>8</sup>

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Division of Industrial Relations

<sup>1</sup> This summary is based on all current agreements filed with the Bureau of Labor Statistics. Although every effort is made to obtain copies of labor-management agreements typical of all sectors of the economy, the composition of the file is not to be construed as a statistically representative "sample": (1) Adequate "bench-mark" or "universe" data are not available on the extent of collective bargaining in the United States to construct such a sample; (2) in some industries (e.g., coal mining, automobiles, and maritime), the pattern of bargaining is such that relatively few contracts represent the bulk of the workers, whereas for many other industries, large numbers of contracts are required to obtain an adequate sample; and (3) response to the Bureau's requests for copies of labor-management agreements are met more fully from some unions and employers than others; hence, some industries or unions may be "overrepresented" and others "underrepresented" in the file.

In its studies analyzing various agreement provisions, however, the Bureau utilizes a sample of from 2,000 to 3,000 agreements selected as far as possible to reflect the bargaining practices of diverse industries, unions, and geographical areas.

<sup>2</sup> Data are based on an aggregate of 11,917 agreements, of which 9,157 or about 78 percent had information on the number of workers normally covered. This reported worker coverage totaled 7,180,000. Agreements for which employment data were not available related, for the most part, to smaller plants or establishments. After allowing for the latter, the total worker coverage of the Bureau's file approximates 7,500,000.

More than one million workers in the railroad and air transport industries are not covered by this figure inasmuch as their agreements are not on file with the Bureau. The Railway Labor Act requires all railroad and air carriers engaged in interstate commerce to file copies of their agreements with the National Mediation Board.

<sup>3</sup> This group was dominated by the 856 agreements on file in which the International Association of Machinists was a signatory. The IAM, in January 1951, rejoined the American Federation of Labor.

<sup>4</sup> All of the agreements on file covering unions of different affiliation (or no affiliation) involved the then unaffiliated International Association of Machinists and one or more AFL affiliates as for example a contract between a western paper company and Paper Makers (AFL), Machinists (Ind.), and Pulp, Sulphite (AFL).

<sup>5</sup> Obviously this broad union dispersion would be narrowed by reference to component industries within the particular industry group. For example, further refinement of the food and kindred products group would show the predominance of unions for separate industry components to be as follows: In bakery products the production workers were represented by Bakery (AFL), and the delivery men by Teamsters (AFL). In meat products the Meat Cutters (AFL), had negotiated the largest number of agreements. The Brewery Workers (CIO) had the highest number of agreements on file for the beverage industries.

<sup>6</sup> The distribution by size of firm does not necessarily indicate the pattern of distribution of firms in the industry. It merely reflects the fact that, generally speaking, agreements for the larger firms are on file in the Bureau and that the bulk of additional contracts which might be obtained for many of these industries would represent smaller groups of workers, thereby scaling down the size pattern of distribution.

<sup>7</sup> Data are based upon expiration dates set forth in the contracts on file in 1950. In many instances agreements were reopened late in 1950 prior to the scheduled expiration date. Such early reopenings are not reflected in these figures.

<sup>8</sup> See Monthly Labor Review, June 1951, for a detailed listing of contract expirations and reopenings.



## Grievance Procedures in Union Agreements, 1950-51

PROCEDURES for handling employee grievances were outlined in 94 percent of 2,850 labor-management contracts recently analyzed by the Bureau of Labor Statistics. Most of the remaining agreements referred to but did not describe a grievance procedure.

Three- and four-step procedures were most frequent. Many agreements had provisions designating the party to present the grievance; fixing time limits on the initiation and processing of grievances; requiring a written record; specifying pay allowances for grievance work; and protecting grievance representatives from lay-off. Mediation was rarely required, but arbitration was common.

Questions of basic wages, hours, and working conditions are usually settled in signed agreements between employer and union, but problems of interpretation and application almost always arise. Moreover, situations frequently develop which were not foreseen when the agreement was negotiated. Problems of seniority, work loads, job rates, etc., are likely to be numerous in a period, such as the present, when many plants are changing their operations to defense production.

Efficient and orderly arrangements for settling grievances are among the most important aspects of the employer-employee relationship. In this, a clearly defined written grievance procedure in the agreement is an important consideration. It cannot, obviously, guarantee harmonious industrial relations, since many factors come into play in the day-to-day administration of the contract.

### Characteristics of Grievance Procedures

Slightly over a tenth (302) of the 2,850 contracts were examined in detail. Of these, 155 covered a minimum of 5,000 workers each and were applicable to a total of 3,300,000 workers. The remaining 147 agreements, selected at random from the contracts covering relatively small companies, covered in the aggregate about 100,000 workers. Two-thirds of both the agreements and workers involved were in manufacturing industries. The contracts studied were in effect during all or some part of 1950, and most of them continued into 1951.

Disputes subject to grievance procedure were usually limited to the interpretation and application of the existing agreement. Either by implication or by explicit provision, matters involving substantive changes or additions to the contract were generally excluded from the grievance procedure. Frequently, specific issues subject to grievance procedure were named, such as application of seniority in lay-off, recall, promotion and transfer, disciplinary action and discharge, and rate-setting for new jobs, etc. On the other hand, specific issues were excluded from the grievance procedure in about a tenth of the 302 agreements. Among these, discharge during the probationary period was the issue most often excluded. Other issues sometimes excluded were disputes over the general wage level, certain management rights, jurisdictional disputes, hiring, promotion, and transfer.

*Presentation of Grievances.* The Labor Management Relations Act of 1947 provides: "Any individual employee or a group of employees shall have the right at any time to present grievances to their employer and to have such grievances adjusted, without the intervention of the bargaining representative, as long as the adjustment is not inconsistent with the terms of a collective-bargaining contract then in effect: *Provided further*, That the bargaining representative has been given opportunity to be present at such adjustment." This legal requirement was specifically indicated in a substantial proportion of the contracts.

The most common provision (included in 87 agreements) made initial presentation of the grievance optional between the union steward and the employee involved (table 1). Most of these agreements gave the employee the choice of presenting his grievance alone or jointly with his steward, or having his steward present it for him. Thus: "The aggrieved employee, the department steward, or both, at the employee's option, may take up any grievance with the employee's immediate supervisor, providing, however, that in the event the aggrieved employee presents a grievance without the assistance of a steward, the steward shall be notified and given the opportunity to be present at the settlement."

Another substantial group of agreements (75) called for presentation of the grievance by the steward alone. However, several of these also speci-



TABLE 1.—Distribution of Provisions for Initial Presentation of Grievances

Party presenting grievances	Agreements		Employees covered	
	Number	Percent	Number	Percent
Total.....	302	100	3,408,000	100
Employee alone.....	35	12	711,000	21
Steward alone.....	75	25	706,000	21
Employee or steward.....	87	29	1,315,000	39
Employee and steward.....	38	12	120,000	3
No provision or clause not specific.....	67	22	536,000	16

cally affirmed the Labor Management Relations Act guarantee of the employee's right to present his own grievance.

Unions generally prefer to have their representatives handle grievances initially in order to discourage individual bargaining between employee and foreman, or the possibility of personal favoritism. Unions also sometimes take the position that the training and experience which many stewards obtain in handling complaints enables them to secure more favorable settlements of deserving cases and to screen out unwarranted complaints.

On the other hand, individual employees sometimes feel that they can make a better presentation of their own grievances and prefer to deal directly with their foremen. The opportunity for so doing, alone or accompanied by their stewards, was provided in over half of the agreements surveyed.

*Steps of Grievance Procedure.* Usually, the processing of an unresolved complaint entails a series of steps, with a higher level of union and management authority participating at each successive stage. If the employee or union is dissatisfied with management's decision—or vice versa, in grievances initiated by management—recourse may be taken to the next higher step for consideration by representatives with greater authority.

From 1 to 7 steps were specified by agreements in the sample (table 2). Some correlation exists between the number of steps and the size of the bargaining unit—contracts covering 1,000 or more employees most frequently specified 4 or 5 steps; 3-step procedures were most common in agreements covering smaller companies.

Generally, the steward and foreman of the aggrieved employee were the representatives at

the first step. Representatives of higher rank were then brought in on both sides at each successive step of the procedure. There was little uniformity in the rank of the participants at the various stages, the order of their appearance, or the frequency with which the same combinations of union and management representatives were paired. Union-management representation in a 4-step procedure was as follows, although it is not necessarily typical:

- I. Employee or steward and foreman;
- II. Chief steward of department and superintendent of department;
- III. Plant grievance committee and plant manager;
- IV. Plant grievance committee-national union representative and president of company or his representative.

Participation at some stage in the grievance procedure by a representative of the national union was provided for by 39 percent of the agreements, covering over three-fifths of the workers. This participation has the advantage, from the national union's viewpoint, of tending to insure consistent, uniform application of national union policy. Moreover, national union representatives are often more experienced and better trained than local union representatives in negotiating with employers, and, therefore, are more likely to secure favorable settlements. However, since most grievances are purely local matters, some employers, as well as some local unions, consider national-union participation unnecessary.

Joint grievance committees, composed of an equal number of representatives of the local union and employer, were provided by about a fourth of the agreements. These committees usually participated at the last step in the procedure.

TABLE 2.—Distribution of number of steps in grievance procedures

Provisions	Agreements		Workers covered	
	Number	Percent	Number	Percent
Total.....	302	100	3,408,000	100
1 step.....	9	3	23,000	1
2 steps.....	22	7	126,000	4
3 steps.....	83	28	875,000	25
4 steps.....	75	25	1,162,000	34
5 steps.....	31	10	328,000	10
6 or 7 steps.....	6	2	74,000	2
Not stated or not clear.....	176	58	810,000	24

<sup>1</sup> The majority of these contracts covered associations of employers and indicated the steps of the grievance procedure at the association level, but were not clear concerning the number of steps, if any, for negotiating grievances within the plant or shop of the individual member of the association.



**Written Record of Grievances.** A requirement that the grievance be stated in writing at some stage in the proceedings was specified in 60 percent of the agreements, covering about the same proportion of the workers. About a third of these agreements called for initial written presentation of the grievance; the remainder did not require a written statement until the second, third, or an even later step. By recording the complaint in writing, petty grievances are discouraged and more careful description of the facts is encouraged. By this means, also, the possibility is reduced of the grievance changing form or being misinterpreted at later stages of the procedure.

**Time Limits.** Specified time limits for initiating and processing grievances are often incorporated in agreements in order to limit the amount of retroactive adjustments and to provide a safeguard against disputes dragging on indefinitely. Twenty-one percent of the contracts fixed a limit on the time between the occurrence of the grievance and the initiation of the processing procedures. Commonly, the time limit was 1 week or less, although 30 days was not infrequent, and as much as 60 days was allowed by some contracts.

Some of these agreements also applied time limits on processing after presentation. Others put a time limit on processing but not on presentation of grievances. Altogether, 56 percent of the agreements, covering 60 percent of the workers, limited the time for processing grievances after presentation. These contracts required management to act on grievances within a specified period at some or all steps of the procedure, and limited the time in which the union could appeal decisions to the next higher step provided under the procedure.

**Pay Allowance for Grievance Work.** Slightly over a third of the 302 contracts required the employer to make some payment for employee time spent in acting as representatives for other employees in processing grievances during regular working hours.<sup>1</sup>

The employer paid for all time spent on grievance work in 38 percent of the agreements providing such pay. Limitations of various kinds were set on the amount of grievance time paid by the employer in 56 percent of the agreements. The maximum was usually a designated number of

hours per day or week, or less frequently, per month or year. Another limitation was to reimburse stewards only for time lost at certain steps in the procedure. Some agreements limited the number of persons eligible for paid grievance activity, or limited the payment to conferences called by management. In some instances, payment for time spent investigating grievances was prohibited, although time spent in conferring with management was compensated. The remaining 6 percent of the agreements providing pay for grievance work required the company and union to share the cost.

Unions generally favor the principle of company pay for grievance work on the ground that prompt adjustment encourages efficient operations and high employee morale. Employers sometimes object to paying for time not worked and feel that shop stewards spend too much time on grievance work when they are allowed pay for it.

**Protection Against Lay-off.** In a third of the contracts, covering nearly two-fifths of the workers, stewards and/or grievance committeemen were placed at the head of seniority lists; therefore, they would be the last to be laid off in the event of a reduction in force. Justification for this practice—sometimes called “superseniority”—usually is that the job status of trained and experienced union representatives must be protected in order to preserve the continuity of their work.

**Special Procedures.** Special handling of certain issues was provided for by 55 percent of the agreements, covering 70 percent of the workers. Among these issues, which often call for faster settlement than other grievances, are disputes over discharges, rates on new jobs and other matters involving loss of earnings, or company liability for back pay. Another type of grievance, often referred immediately to higher management and union representatives, arises out of broad issues affecting all or a large part of the bargaining unit.

The issue most frequently designated for special handling was discharge or other disciplinary action; it was mentioned in 37 percent of the agreements, covering 54 percent of the workers. About three-fourths had more restrictive time limits on the presentation or processing of disciplinary grievances than on other complaints. More than a third of the agreements requiring special handling



of disciplinary grievances called for the bypassing of the first or second steps, or both, of the regular procedure. For example: "If an employee represented by the union is discharged from his employment and believes that he has been unjustly dealt with, such discharge shall constitute a dispute or difference for determination under the Method of Adjusting Grievances provided for in Article XIX, except that it must be taken up within 3 working days after the discharge, and shall be taken directly to the third step (plant grievance committee and departmental executive)."

Special treatment for complaints arising out of broad issues affecting all or a large part of the bargaining unit was called for in about 10 percent of the agreements. Five percent provided special handling of grievances initiated by management against the union or individual employees. This usually consisted of bypassing the steps involving foremen, stewards, and other representatives with limited authority. Omission of the first one or two steps was also fairly common in grievances arising over matters of safe working conditions (particularly in the steel industry) and complaints involving incentive rates or production standards. Fewer steps, more restrictive time limits, or other special handling was occasionally specified for grievances arising over union membership, lay-offs, transfers and promotions, eligibility for pensions, and "emergencies."

*Mediation and Arbitration.* Agreements often provide for the assistance of outside impartial agencies in the settlement of grievances which have not been adjusted in all the steps of the grievance procedure.

Outside mediation was specified as part of the grievance procedure in about 5 percent of the

agreements. However, mediation was most frequently made optional with the parties. The mediation agency most frequently specified was the Federal Mediation and Conciliation Service.

Arbitration as the terminal point in the disposition of a grievance was prescribed in nearly 90 percent of the 302 agreements. This finding conforms with results in a Bureau of Labor Statistics survey of arbitration provisions in effect in 1949.<sup>1</sup> Of the 1,500 agreements then studied, over four-fifths required arbitration of unsettled grievances.

Arbitration is the one means by which the final decision is taken out of the hands of the parties involved. Having voluntarily agreed to arbitrate, they are bound to accept and comply with the arbitrator's decision. A typical clause providing for both mediation and arbitration reads as follows: "If the matter is not concluded at two meetings between the parties, it may be referred to the Federal Mediation and Conciliation Service for mediation. If mediation fails to settle the grievance satisfactorily, then the grievance shall be submitted to a board of arbitration, the decision of which shall be final and binding on the parties."

—JAMES NIX, ROSE THEODORE, and DENA WOLK  
Division of Industrial Relations

<sup>1</sup> Data on pay allowances were also available for the larger group of 2,850 contracts. The proportion of these contracts which compensated in whole or in part for grievance time was about the same as in the sample of 302 contracts; i. e., a third. Such payment was provided by a majority of the agreements in each of these industry groups: Transportation equipment, machinery, rubber, petroleum refining, chemicals, furniture and finished lumber products, communications, and electric and gas utilities. Relatively few agreements in apparel, printing, construction, services, trade, and transportation provided pay for employee grievance representatives. In most of these industries, however, grievance negotiations are commonly conducted by representatives employed by the national or local union.

<sup>2</sup> See *Arbitration Provisions in Union Agreements in 1949*, Monthly Labor Review, February 1950 (p. 100). For a wide variety of illustrative grievance and arbitration clauses, see *Grievance and Arbitration Provisions*, U. S. Department of Labor, Bureau of Labor Statistics, Bulletin No. 908-16.

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"The company that has a reputation for sound industrial relations and works through its supervision and shop people to bring in new help, is finding that the money spent on personnel programs during the decade that is past is a pot of gold in the form of applicants in the employment department."

—Ben F. McClancy, General Manager,  
Associated Industries of Cleveland,  
in *The Journal of Commerce*, July 21, 1951.



## Injury Rates in Manufacturing, 1949-50: A Graphic Analysis<sup>1</sup>

EARLY IN 1950 it became apparent that the downward trend in work-injury rates for manufacturing during recent years had been interrupted. As the year progressed an implication began to develop that this might be not simply an interruption of the favorable postwar trend, but the beginning of a new upward trend similar to that which started in 1941 and reached its peak in 1943. By the end of 1950, this implication had grown from a merely possible into a highly probable assumption.

In retrospect it would, of course, be simple to ascribe the upturn in the manufacturing injury-frequency rate<sup>2</sup> to some single outstanding event such as the outbreak of hostilities in Korea with its subsequent intensification of manufacturing activity. However, the upturn in the rate preceded June 25, 1950, when Korea was invaded—in fact, it first became obvious in May. Realistically, it appears that many factors were involved rather than any single influence. Among the probabilities are: (a) Entrance of new and inexperienced workers into industry; (b) some increases in scheduled hours of work; and (c) transfers of workers to types of work with which they were relatively unfamiliar. Movements of the all-manufacturing injury-frequency rates during 1949 and 1950 in relation to certain other industrial measures, shown in the accompanying chart, indicate graphically some of the conditions which may have affected the injury-frequency rate. Monthly injury-frequency rates for manufacturing (part A of the chart) have been plotted in terms of their variation from the 12-month average for the year 1949.

In 1949, the January and February rates were both about 7 percent higher than the year average. Then the monthly rates declined progressively through June to a point 1.5 percent below the year's average. In July, the typical summer upswing started, and the rate rose to a peak in August, when it was 11 percent above the average. From then on, it followed the usual seasonal pattern and dropped rapidly; in December, the rate was 14.5 percent below the year's average.

The general movement throughout 1949 followed pretty closely the seasonal pattern observed

in other years. Some indications that the downward trend of previous years had stopped were apparent, but the variations were not startling. It was reassuring that the rate was lower at the end than at the beginning of the year.

It was evident that early in 1950 the monthly rates were moving upward instead of showing the usual spring and early-summer decline. Nevertheless, until May they were consistently lower than for the corresponding months of 1949. In May 1950, the rate moved into higher ground, and for the rest of the year it held well above the 1949 level. In contrast to the previous year, the frequency rate at the end of 1950 was substantially higher than at the beginning of the year.

Part B of the chart exemplifies more vividly how 1950 differed from 1949, by showing the percentage difference in frequency rates between each month of 1950 and the corresponding month of 1949. For example, at the starting point, the injury-frequency rate for manufacturing during January 1950 was nearly 14 percent lower than the January 1949 rate. The December 1950 rate, however, was 14 percent higher than the corresponding 1949 rate.

Superimposed over the line showing the monthly comparisons is a trend line computed by the method of least squares. Use of a standard method of eliminating chance fluctuations and determining the average movement in a series of related statistical data emphasizes the existence of the upward trend.

It is rather conclusively established by part B of the chart that the upswing in the all-manufacturing injury-frequency rate started even earlier than indicated by part A, or by comparisons based upon actual rate levels. Part B also shows that the upward trend was fairly constant throughout the year and was not a sudden upturn which could be associated with any specific event such as the outbreak of fighting in Korea. This fact makes a simple explanation of the upswing difficult.

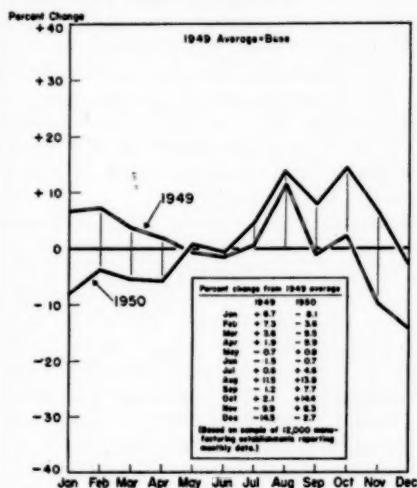
Parts C and D of the chart indicate some of the possible reasons for the upward movement in rates, as shown in parts A and B.

When employment rises, it has often been said, the introduction of new employees into the workplace results in a rise in the injury rate. It has also been argued that any lengthening of hours of work causes the injury rate to rise. In actual practice, changes in employment and in working

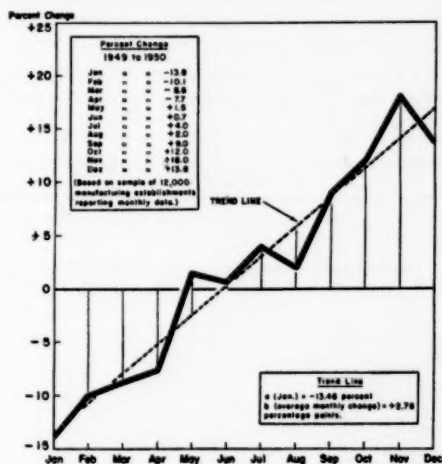


## INJURY-FREQUENCY RATES IN MANUFACTURING

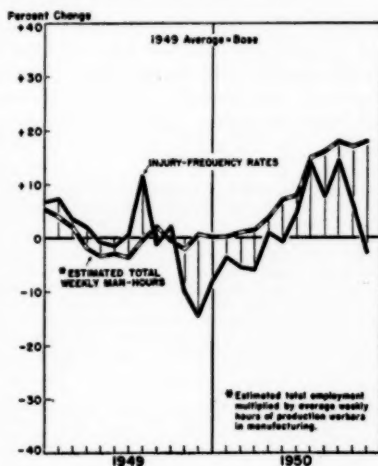
A—Percent Change from 1949 Average



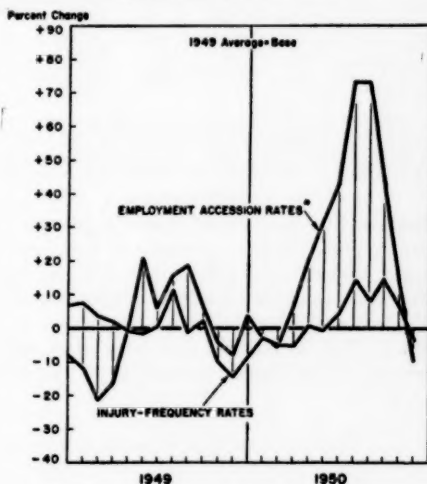
B—Percent Change from 1949 to 1950



C—Compared with Total Weekly Hours



D—Compared with Employment Accession Rates



\*Adjusted for varying length of calendar months.



hours tend to occur simultaneously; thus in an analysis of mass data, it is not possible to separate the effects of each upon the injury rate. For practical purposes, these two factors have been merged into total manhours worked, which reflects changes both in the number of workers and in the scheduled hours of work. Part C of the chart, therefore, shows the month-by-month changes in total man-hours in comparison with changes in the all-manufacturing frequency rate, during 1949 and 1950.

Variations in injury-frequency rates, manufacturing, 1949-50, and related factors

Year and month	Percent change 1949 to same month in 1950, injury-frequency rate	Percent change from 1949 average		
		Injury-frequency rate	Estimated total weekly man-hours <sup>1</sup>	Employment-accession rate <sup>2</sup>
1949:				
January.....		+6.7	+5.3	-8.4
February.....		+7.3	+4.1	-12.0
March.....		+3.6	+2.1	-16.9
April.....		+1.9	-1.8	0
May.....		-7	-3.3	+20.5
June.....		-1.5	-2.9	+6.0
July.....		-6	-3.7	+15.7
August.....		+11.6	-5	+18.1
September.....		-1.2	+2.2	+6.0
October.....		+2.1	-5	-4.8
November.....		-9.9	-2.1	-8.4
December.....		-14.8	+7	
1950:				
January.....	-13.8	-8.1	+1	+3.6
February.....	-10.1	-3.6	+2	-3.6
March.....	-8.8	-5.5	+1.0	-6.0
April.....	-7.7	-5.9	+1.4	+6.0
May.....	+1.5	+8	+3.7	+20.5
June.....	-7	-7	+7.1	+31.3
July.....	+4.0	+4.6	+7.9	+42.2
August.....	+2.0	+13.8	+14.8	+72.3
September.....	+9.0	+7.7	+16.0	+72.3
October.....	+12.9	+14.4	+17.9	+42.2
November.....	+18.0	+6.3	+16.8	+14.5
December.....	+13.8	-2.7	+17.9	-9.6

<sup>1</sup> Estimated total employment multiplied by average weekly hours of production workers in manufacturing.

<sup>2</sup> Monthly employment-accession (labor turn-over) rates were reduced to a weekly basis, in order to eliminate the effect of varying length of the calendar months.

Neither line in part C shows a pronounced trend in 1949, but the movement of both lines is upward in 1950. The fact that the two lines follow each other so closely is important, since it suggests a direct correlation. This is not proof positive, but it strongly indicates that rising employment and longer working hours had some

effect on the upswing in injury rates during 1950.

The whole theory that rising employment brings a rise in the injury rate rests on the assumption that new employees require time to become accustomed to their work before they can really operate as safe workers. If this is true, it would logically apply to workers who change jobs as well as to those newly hired into industry. The effects of transfers between plants, however, are not reflected in the employment totals. Sometimes these transfers may be much more important than the number of new workers entering industry, particularly when extensive shifts in types of production are in progress.

To take note of this factor, part D of the chart compares the movement of injury rates with that of the manufacturing employment-accession rate. The latter measures the number of people entering new employment, either by transfer from another job or by being hired for the first time. It does not, however, include changes in job assignments within individual companies; to that extent, it fails to reveal how many workers had to learn the hazards of new jobs.

Subject to this limitation, a very close correlation is shown between the accession and injury rates. A feature is that the movements in accession rate seem to lead the way—the change in the injury rate generally lags a month or so behind. For example, the accession rate turned sharply upward in April 1950 and was followed by a sharp rise in the injury rate during May. Similarly, the accession rate started down from its peak in October, but the injury rate did not drop until November.

<sup>1</sup> Data are from a discussion by Ewan Clague, Commissioner of Labor Statistics, before the President's Conference on Industrial Safety, Washington, D. C., May 9, 1951.

<sup>2</sup> The injury-frequency rate is the average number of disabling work injuries for each million employee-hours worked.

A disabling work injury is an injury arising out of and in the course of employment, which results in death or any degree of permanent impairment, or makes the injured worker unable to perform a regularly established job open and available to him, throughout the hours corresponding to his regular shift, on any 1 or more days (including Sundays, days off, or plant shut-downs) after the day of injury. The term "injury" includes occupational disease.



## Machinery Manufacture: Earnings in January 1951<sup>1</sup>

AVERAGE EARNINGS of plant workers in selected occupations were generally from 3 to 13 percent higher in January 1951 than in November 1949, the date of a previous study. Slightly more than half of the advances were concentrated within a 5 to 10 percent range. Increases of 10 percent or

more were recorded for about a fourth of the occupations for which comparisons could be made. These increases in earnings reflected the widespread wage adjustments made in 1950.

Average earnings in 20 of the 26 selected occupations were highest in areas located in the Great Lakes region. Detroit ranked first in 13 occupations and recorded average earnings exceeding \$2 an hour for 7 occupations (table 1). Excepting

TABLE 1.—Straight-time average hourly earnings<sup>1</sup> for men in selected occupations in machinery manufacturing plants in 29 cities, January 1951

Occupation and grade	Atlanta	Balti- more <sup>2</sup>	Bos- ton	Buff- alo	Chatta- nooga	Chi- cago <sup>3</sup>	Cin- cinnati <sup>4</sup>	Cleve- land	Dallas	Den- ver	Detroit	Hart- ford	Hous- ton	Indian- apolis <sup>2</sup>	Los An- geles
Assemblers, class A.....	\$1.46	\$1.65	\$1.76	\$1.61	\$1.57	\$1.85	\$1.62	\$1.88	\$1.51	\$1.68	\$1.90	\$1.74	\$1.72	\$1.63	\$1.76
Assemblers, class B.....	( <sup>5</sup> )	( <sup>5</sup> )	1.47 1.51	1.50	1.51	1.71	1.44	1.82	1.34	1.43	1.71	1.53	1.53	1.44	1.54
Assemblers, class C.....	( <sup>5</sup> )	1.13	1.27	1.41	1.06	1.41	1.19	1.52	( <sup>5</sup> )	( <sup>5</sup> )	1.66	1.36	( <sup>5</sup> )	( <sup>5</sup> )	1.26
Drill-press operators, single and multiple spindle, class A.....	( <sup>5</sup> )	1.76	1.66	( <sup>5</sup> )	1.74	1.86	1.63	1.85	( <sup>5</sup> )	( <sup>5</sup> )	1.92	1.72	1.65	1.65	1.6 <sup>5</sup>
Drill-press operators, single and multiple spindle, class B.....	1.15	1.46	1.44	1.43	1.40	1.67	1.39	1.79	1.24	1.37	1.74	1.47	( <sup>5</sup> )	1.60	1.55
Drill-press operators, single and multiple spindle, class C.....	1.07	1.20	1.37	1.21	1.20	1.47	1.12	1.35	( <sup>5</sup> )	( <sup>5</sup> )	1.60	1.48	( <sup>5</sup> )	1.30	1.29
Electricians, maintenance.....	1.45	1.62	1.64	1.78	1.64	1.94	1.62	1.80	( <sup>5</sup> )	1.58	2.09	1.62	2.00	1.78	1.98
Engine-lathe operators, class A.....	( <sup>5</sup> )	1.65	1.78	1.77	( <sup>5</sup> )	1.88	1.60	1.84	1.60	( <sup>5</sup> )	2.23	1.76	1.90	1.69	1.78
Engine-lathe operators, class B.....	1.57	1.50	1.46	1.54	1.52	1.72	1.46	1.75	( <sup>5</sup> )	1.44	1.80	1.50	( <sup>5</sup> )	1.40	1.58
Engine-lathe operators, class C.....	( <sup>5</sup> )	( <sup>5</sup> )	1.33	( <sup>5</sup> )	( <sup>5</sup> )	1.43	1.18	1.68	( <sup>5</sup> )	( <sup>5</sup> )	1.62	1.36	( <sup>5</sup> )	( <sup>5</sup> )	1.45
Grinding-machine operators, class A.....	( <sup>5</sup> )	1.77	1.86	1.70	( <sup>5</sup> )	1.97	1.76	1.93	1.59	( <sup>5</sup> )	2.31	1.83	( <sup>5</sup> )	1.80	1.86
Grinding-machine operators, class B.....	( <sup>5</sup> )	( <sup>5</sup> )	1.49	1.38	( <sup>5</sup> )	1.78	1.61	1.87	( <sup>5</sup> )	( <sup>5</sup> )	1.81	1.58	( <sup>5</sup> )	1.65	1.61
Grinding-machine operators, class C.....	( <sup>5</sup> )	1.23	1.21	( <sup>5</sup> )	( <sup>5</sup> )	1.62	( <sup>5</sup> )	1.58	( <sup>5</sup> )	( <sup>5</sup> )	1.59	1.41	( <sup>5</sup> )	1.25	1.41
Inspectors, class A.....	( <sup>5</sup> )	1.60	1.76	1.79	1.53	1.89	1.57	1.84	1.66	( <sup>5</sup> )	2.11	1.72	1.84	1.77	1.84
Inspectors, class B.....	1.15	1.43	1.54	1.55	1.48	1.62	1.38	1.72	( <sup>5</sup> )	( <sup>5</sup> )	1.75	1.48	( <sup>5</sup> )	1.61	1.54
Inspectors, class C.....	( <sup>5</sup> )	1.30	1.33	( <sup>5</sup> )	( <sup>5</sup> )	1.45	1.12	1.64	( <sup>5</sup> )	( <sup>5</sup> )	1.62	1.19	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )
Janitors.....	.91	1.06	1.11	1.22	1.04	1.27	1.11	1.32	.99	1.17	1.47	1.16	1.13	1.30	1.28
Machinists, production.....	( <sup>5</sup> )	1.55	1.55	( <sup>5</sup> )	1.66	1.89	1.57	1.79	1.60	1.67	1.93	1.63	1.90	1.73	1.87
Milling-machine operators, class A.....	( <sup>5</sup> )	1.75	1.85	1.63	1.60	1.95	1.65	1.91	( <sup>5</sup> )	1.76	2.19	1.81	1.71	1.73	1.86
Milling-machine operators, class B.....	( <sup>5</sup> )	1.67	1.47	( <sup>5</sup> )	( <sup>5</sup> )	1.80	1.45	1.80	1.32	1.42	1.78	1.53	( <sup>5</sup> )	1.68	1.61
Milling-machine operators, class C.....	( <sup>5</sup> )	1.42	1.33	( <sup>5</sup> )	( <sup>5</sup> )	1.62	1.14	1.42	( <sup>5</sup> )	( <sup>5</sup> )	1.59	1.33	( <sup>5</sup> )	1.57	( <sup>5</sup> )
Tool and die makers (tool and die jobbing shops).....	( <sup>5</sup> )	( <sup>5</sup> )	1.83	1.86	( <sup>5</sup> )	2.27	1.96	1.97	( <sup>5</sup> )	( <sup>5</sup> )	2.47	1.81	( <sup>5</sup> )	1.87	( <sup>5</sup> )
Tool and die makers (other).....	1.73	1.80	1.80	1.81	( <sup>5</sup> )	2.11	1.82	2.04	1.81	( <sup>5</sup> )	2.17	1.84	1.97	2.02	2.00
Truckers, hand.....	.94	1.10	1.17	( <sup>5</sup> )	1.07	1.35	1.18	1.45	( <sup>5</sup> )	1.23	1.54	1.20	1.21	( <sup>5</sup> )	1.36
Welders, hand, class A.....	1.52	1.66	1.62	( <sup>5</sup> )	1.73	1.87	1.56	1.82	1.47	1.77	1.97	1.75	1.89	1.67	1.83
Welders, hand, class B.....	1.27	1.39	1.50	1.53	1.50	1.73	1.35	1.68	1.29	( <sup>5</sup> )	1.84	1.57	1.86	1.61	1.59

Occupation and grade	Mil- wau- kee <sup>2</sup>	Minne- apolis- St. Paul <sup>2</sup>	Newark- Jersey City <sup>2</sup>	New York City	Phil- adel- phia	Pitts- burgh <sup>2</sup>	Port- land, Oreg. <sup>2</sup>	Provi- dence	St. Louis <sup>2</sup>	San Fran- cisco	Seat- tle <sup>2</sup>	Syrac- use <sup>2</sup>	Tulsa	Wor- ces- ter
Assemblers, class A.....	\$1.81	\$1.65	\$1.89	\$1.94	\$1.68	\$1.91	\$1.76	\$1.47	\$1.72	\$1.79	\$1.79	\$1.72	\$1.57	\$1.72
Assemblers, class B.....	1.76	1.53	1.53	1.72	1.58	1.83	1.57	1.42	1.41	1.54	( <sup>5</sup> )	1.51	1.36	1.82
Assemblers, class C.....	1.63	1.33	1.43	1.34	1.51	1.57	( <sup>5</sup> )	1.19	1.22	1.47	( <sup>5</sup> )	( <sup>5</sup> )	1.23	1.40
Drill-press operators, single and multiple spindle, class A.....	1.87	1.72	1.65	1.84	1.58	( <sup>5</sup> )	1.61	1.37	1.67	1.71	( <sup>5</sup> )	1.91	1.51	( <sup>5</sup> )
Drill-press operators, single and multiple spindle, class B.....	1.77	1.53	1.46	1.53	1.47	1.69	( <sup>5</sup> )	1.34	1.54	1.53	( <sup>5</sup> )	1.65	( <sup>5</sup> )	1.59
Drill-press operators, single and multiple spindle, class C.....	1.64	1.21	1.33	1.27	1.33	1.40	( <sup>5</sup> )	1.33	1.22	( <sup>5</sup> )	( <sup>5</sup> )	1.42	1.06	1.29
Electricians, maintenance.....	1.82	1.77	1.81	1.85	1.80	1.85	1.79	1.60	1.88	1.94	( <sup>5</sup> )	1.67	1.64	1.71
Engine-lathe operators, class A.....	1.81	1.74	1.81	1.86	1.84	1.88	1.76	1.52	1.72	1.85	1.78	1.61	1.69	1.65
Engine-lathe operators, class B.....	1.71	( <sup>5</sup> )	1.63	1.66	1.57	1.74	( <sup>5</sup> )	1.41	1.64	( <sup>5</sup> )	( <sup>5</sup> )	1.46	1.54	1.47
Engine-lathe operators, class C.....	1.65	( <sup>5</sup> )	1.42	1.34	1.39	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	1.33	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	1.26
Grinding-machine operators, class A.....	1.98	1.82	1.86	1.96	1.80	1.99	1.66	1.54	1.78	1.83	( <sup>5</sup> )	1.70	1.61	1.86
Grinding-machine operators, class B.....	1.73	1.65	1.72	( <sup>5</sup> )	1.67	1.83	( <sup>5</sup> )	1.56	1.67	1.62	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	1.59
Grinding-machine operators, class C.....	1.76	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	1.34	( <sup>5</sup> )	1.25	1.45	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	1.33
Inspectors, class A.....	1.84	1.75	1.82	1.93	1.85	2.02	1.79	1.45	1.67	1.81	( <sup>5</sup> )	1.59	1.60	1.68
Inspectors, class B.....	1.66	1.48	1.60	1.61	1.61	1.93	( <sup>5</sup> )	1.44	1.44	( <sup>5</sup> )	( <sup>5</sup> )	1.42	1.32	1.48
Inspectors, class C.....	1.46	( <sup>5</sup> )	1.32	1.28	1.51	( <sup>5</sup> )	( <sup>5</sup> )	1.21	1.21	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )
Janitors.....	1.28	1.24	1.22	1.30	1.16	1.36	1.32	1.07	1.12	1.38	1.41	1.13	1.00	1.23
Machinists, production.....	1.78	1.70	1.65	1.80	1.67	1.82	1.78	1.56	1.91	1.84	1.81	1.67	1.69	( <sup>5</sup> )
Milling-machine operators, class A.....	1.86	1.77	1.85	1.85	1.86	1.86	1.76	1.50	1.79	1.83	( <sup>5</sup> )	1.73	1.59	1.64
Milling-machine operators, class B.....	1.71	1.58	1.58	1.69	1.87	( <sup>5</sup> )	( <sup>5</sup> )	1.45	1.64	1.63	( <sup>5</sup> )	1.49	( <sup>5</sup> )	1.64
Milling-machine operators, class C.....	1.74	( <sup>5</sup> )	( <sup>5</sup> )	1.36	1.53	( <sup>5</sup> )	( <sup>5</sup> )	1.36	1.32	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )
Tool and die makers (tool and die jobbing shops).....	1.99	( <sup>5</sup> )	1.91	2.03	2.10	( <sup>5</sup> )	( <sup>5</sup> )	1.92	2.17	( <sup>5</sup> )	( <sup>5</sup> )	1.77	( <sup>5</sup> )	( <sup>5</sup> )
Tool and die makers (other).....	1.90	1.91	1.96	2.02	1.93	2.06	1.87	1.98	2.11	2.21	2.09	1.77	1.82	1.82
Truckers, hand.....	1.29	1.26	1.31	1.30	1.34	( <sup>5</sup> )	( <sup>5</sup> )	1.07	1.23	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	1.32
Welders, hand, class A.....	1.88	1.63	1.92	( <sup>5</sup> )	1.93	1.90	1.75	1.53	1.85	1.83	1.76	1.72	1.70	1.70
Welders, hand, class B.....	1.68	1.57	1.66	1.64	1.72	1.71	1.61	1.25	1.45	( <sup>5</sup> )	( <sup>5</sup> )	1.56	( <sup>5</sup> )	1.65

<sup>1</sup> Excludes premium pay for overtime and night work.

<sup>2</sup> Data relate to December 1950.

<sup>3</sup> Data relate to March 1951.

<sup>4</sup> Data relate to February 1951.

<sup>5</sup> Insufficient data to permit presentation of an average.



tool and die makers, class A inspectors in Pittsburgh were the only occupational group outside of Detroit with an hourly wage level above \$2. Occupational earnings were generally lowest in Southern and New England areas.

Tool and die makers were generally the highest paid among the selected machinery manufacturing occupations studied. In tool and die jobbing shops average earnings ranged from \$1.77 an hour in Syracuse to \$2.47 in Detroit; and in establishments making other machinery products, from \$1.68 in Providence to \$2.21 in San Francisco. Wage levels of at least \$1.90 an hour were applicable to tool and die makers in jobbing shops in 10 of 15 areas, and in other machinery plants in 15 of 27 areas. About two-thirds of all tool and die makers studied had hourly earnings of \$2 or more.

A consistent relationship was not evident in the average earnings of the two groups of tool and die makers. Of the 15 areas for which comparisons could be made, hourly earnings of jobbing shop tool and die makers in 10 areas averaged from 1 cent to more than 15 cents higher than those of other tool and die makers; in 4 areas these earnings were from 3 to 15 cents lower. In the other area, average earnings were identical for the two groups of tool and die makers.

Among other skilled processing jobs, the levels of hourly earnings in the 29 areas ranged from \$1.46 to \$1.94 for class A assemblers; from \$1.52 to \$2.23 for class A engine-lathe operators; from \$1.54 to \$2.31 for class A grinding-machine operators; from \$1.50 to \$2.19 for class A milling-

machine operators; and from \$1.55 to \$1.93 for production machinists. From 8 to about 50 percent of the workers in these occupations earned, on the average, \$2.00 or more an hour.

Janitors and hand truckers, generally the lowest paid among the selected occupations, had hourly earnings averaging from 91 cents to \$1.47 and from 94 cents to \$1.54, respectively. These were the only jobs in which levels fell below \$1 an hour.

Data are not presented for women plant workers because they were generally employed in only a few of the selected occupations in areas of heavy concentration, such as Chicago, Cleveland, and Detroit. In the two numerically important occupations, women averaged from \$1.12 to \$1.52 an hour as class C assemblers and from \$1.03 to \$1.51 as class C inspectors. In most instances women averaged from 3 to 21 cents an hour less than men in these occupations.

#### Machine Tool Accessories

Separate data are presented for the machine tool accessory branch of the industry in four leading areas (table 2). The relationship in wage levels between production and jobbing shops did not follow a definite pattern. Average earnings for most occupations in Chicago and Detroit were higher in jobbing shops than in production shops; in Cleveland and Hartford this relationship was reversed. The differences in Detroit were sharper than those in the other areas. In five of six occupations for which comparisons could be made for Detroit, the earning advantages in jobbing shops ranged from 23 to 64 cents an hour. All

TABLE 2.—Straight-time average hourly earnings<sup>1</sup> for men in selected occupations in machine tool accessory manufacturing plants in 4 cities, January 1951

Occupation and grade	Chicago <sup>2</sup>		Cleveland		Detroit		Hartford	
	Production shops	Jobbing shops	Production shops	Jobbing shops	Production shops	Jobbing shops	Production shops	Jobbing shops
Electricians, maintenance.....	\$1.96	\$2.10	( <sup>3</sup> )	\$1.68	\$2.00	( <sup>3</sup> )	\$1.62	( <sup>3</sup> )
Engine-lathe operators, class A.....	1.95	2.07	\$1.80	1.77	2.09	\$2.32	1.78	\$1.70
Engine-lathe operators, class B.....	1.71	1.77	1.84	1.99	1.89	( <sup>3</sup> )	1.51	1.55
Engine-lathe operators, class C.....	1.47	( <sup>3</sup> )	1.40	( <sup>3</sup> )	1.59	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Grinding-machine operators, class A.....	1.99	2.11	1.88	1.95	2.14	2.50	1.95	1.78
Grinding-machine operators, class B.....	1.72	1.71	1.70	1.63	1.81	( <sup>3</sup> )	1.65	1.53
Grinding-machine operators, class C.....	1.46	( <sup>3</sup> )	1.43	( <sup>3</sup> )	1.54	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Inspectors, class A.....	( <sup>3</sup> )	2.23	1.85	( <sup>3</sup> )	2.02	2.66	( <sup>3</sup> )	( <sup>3</sup> )
Inspectors, class B.....	1.64	( <sup>3</sup> )	1.62	( <sup>3</sup> )	1.76	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Inspectors, class C.....	1.64	( <sup>3</sup> )	( <sup>3</sup> )	1.67	1.82	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Janitors.....	1.31	1.21	( <sup>3</sup> )	1.07	1.47	1.49	1.10	1.09
Machinists, production.....	1.93	2.02	( <sup>3</sup> )	1.25	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	1.59
Milling-machine operators, class A.....	2.09	2.12	1.91	1.76	2.13	2.36	1.93	1.66
Milling-machine operators, class B.....	1.84	1.66	1.95	( <sup>3</sup> )	1.79	( <sup>3</sup> )	1.56	1.54
Milling-machine operators, class C.....	1.52	1.41	1.37	( <sup>3</sup> )	1.56	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Tool-and-die makers.....	( <sup>3</sup> )	2.27	1.95	1.97	2.17	2.47	1.83	1.81
Truckers, hand.....	1.42	( <sup>3</sup> )	1.34	( <sup>3</sup> )	1.51	( <sup>3</sup> )	1.21	( <sup>3</sup> )

<sup>1</sup> Excludes premium pay for overtime and night work.

<sup>2</sup> Data relate to March 1951.

<sup>3</sup> Insufficient data to permit presentation of an average.



but two of the differences in the other three areas were under 20 cents an hour.

Average earnings for most of the occupations in Detroit jobbing shops, in Hartford production shops, and in both types of shops in Chicago were higher than those for the machinery industry as a whole (cf. table 1). They were generally lower in both types of shops in Cleveland, in Detroit production shops, and in Hartford jobbing shops.

Detroit machine-tool accessory workers ranked highest in occupational earnings. Chicago, the next leading city, was followed in order by Cleveland and Hartford.

### Office Workers

General stenographers, numerically the most important of the women's office jobs studied in the machinery industry, had average earnings ranging from \$1.02 to \$1.41 an hour (table 3). The levels of earnings of payroll clerks in 17 areas did not differ by more than 5 cents an hour from those of stenographers, and were as low as \$1 and as high as \$1.40. Class A typists in one area and class B typists in eight areas were the only groups of women office workers studied whose

hourly earnings averaged less than \$1. In the other areas, average earnings for both classes of typists varied from \$1.02 to \$1.34 and from \$1 to \$1.17 an hour, respectively.

### Related Wage Practices

Scheduled workweeks longer than 40 hours, ranging from 42.5 to 63 hours, were in effect for a majority of the men employees in machinery establishments in 9 of the 29 areas studied. Baltimore, Cleveland, Philadelphia, and St. Louis were the only areas in which plant work schedules for men were under 40 hours a week. From 5 to 35 percent of the men in those four areas worked a 37½-hour week.

A 40-hour week was most common for women. Major exceptions were schedules of 37½ hours in Baltimore; 42 in Worcester; 44 in Houston; 45 in Providence; and 48 in Pittsburgh. Workweeks of 40 and 45 hours were equally divided among women machinery workers in Tulsa.

Second shifts were operated by machinery establishments in all the areas studied. From about 3 to 28 percent of the labor force in the industry worked on the second shift. Machinery establishments in only 12 of the 29 areas, however, had second-shift operations employing more than 15 percent of the plant labor force.

The extent of third-shift work was considerably less than that of second shift. Of the 26 areas reporting this practice, only 2 had a third-shift force as large as 9 percent of the total plant employment in the industry in their respective areas. The payment of differentials for late shift work was a common practice in the industry. The amounts of premium pay varied by establishment and by area, but usually ranged from 5 to 10 cents an hour and from 5 to 10 percent.

Paid vacations were granted to all plant workers in the machinery industry in 14 of the 29 areas. From less than 1 to not more than 6 percent of the workers in the other 15 areas, were employed in plants which had no paid vacation policies. Workers generally received paid vacations of 1 week after a year's service and 2 weeks after 5 years. Major exceptions to this general policy, which were applicable to at least 10 percent of the plant workers in each area, were: 1-week vacations after 6 months, in 5 areas; and 2-week vacations after 2 years, in 10 areas. Office

TABLE 3.—Straight-time average hourly earnings<sup>1</sup> for women in selected office occupations in machinery manufacturing plants in 29 cities, January 1951

City	Clerks, payroll	Stenog- raphers, general	Typists	
			Class A	Class B
Atlanta.....	\$1.36	\$1.28	( <sup>2</sup> )	( <sup>2</sup> )
Baltimore <sup>3</sup> .....	1.31	1.16	\$0.91	\$0.90
Boston.....	1.10	1.14	1.05	1.00
Buffalo.....	1.11	1.16	1.14	.91
Chattanooga.....	1.23	1.09	( <sup>2</sup> )	1.03
Chicago <sup>4</sup> .....	1.36	1.37	1.34	1.16
Cincinnati <sup>4</sup> .....	1.14	1.22	1.02	.96
Cleveland.....	1.26	1.32	1.24	1.03
Dallas.....	( <sup>2</sup> )	1.20	1.08	( <sup>2</sup> )
Denver.....	( <sup>2</sup> )	1.14	( <sup>2</sup> )	1.10
Detroit.....	1.27	1.34	1.31	1.08
Hartford.....	1.10	1.19	1.10	1.00
Houston.....	1.40	1.38	1.27	1.11
Indianapolis <sup>3</sup> .....	1.32	1.33	1.10	1.03
Los Angeles.....	1.33	1.32	1.17	( <sup>2</sup> )
Milwaukee <sup>3</sup> .....	1.16	1.18	1.19	1.02
Minneapolis-St. Paul <sup>3</sup> .....	1.13	1.16	1.02	.90
Newark-Jersey City <sup>3</sup> .....	1.25	1.22	1.13	1.02
New York.....	1.37	1.41	1.31	1.15
Philadelphia.....	1.20	1.20	1.12	.99
Pittsburgh.....	1.31	1.29	1.20	( <sup>2</sup> )
Portland, Oreg. <sup>3</sup> .....	1.24	1.27	( <sup>2</sup> )	( <sup>2</sup> )
Providence.....	1.00	1.02	( <sup>2</sup> )	.90
St. Louis <sup>3</sup> .....	1.15	1.13	1.14	.98
San Francisco.....	1.35	1.28	( <sup>2</sup> )	1.17
Seattle <sup>3</sup> .....	1.18	1.20	1.15	1.02
Syracuse <sup>3</sup> .....	( <sup>2</sup> )	( <sup>2</sup> )	1.03	( <sup>2</sup> )
Tulsa.....	1.27	1.24	1.22	( <sup>2</sup> )
Worcester.....	1.20	1.17	( <sup>2</sup> )	.99

<sup>1</sup> Excludes premium pay for overtime and night work.

<sup>2</sup> Insufficient data to permit presentation of an average.

<sup>3</sup> Data relate to December 1950.

<sup>4</sup> Data relate to March 1951.

<sup>5</sup> Data relate to February 1951.



workers received more liberal vacation benefits than those specified above. Paid vacations of 2 weeks after a year's employment were granted to more than half of the office workers in the industry in 20 of the 29 areas studied.

Six paid holidays a year were typically provided for both plant and office workers. In Boston, Hartford, Newark, New York, Portland (Oreg.), Providence, San Francisco, and Seattle machinery establishments, most of the workers received at least seven paid holidays annually.

Life insurance, group hospitalization, and other health insurance plans, for which employers paid part or all of the costs, were established practices in virtually all areas studied. The coverage varied by area and type of insurance, and generally applied to most of the workers in the industry. Portland, Oreg., was the only area which did not provide group hospitalization benefits and in which less than half the workers in the machinery

industry were covered by life insurance plans. Retirement pension plans were reported in all areas except Atlanta and Chattanooga. The proportions of workers covered by these plans varied greatly by area and ranged from 4 to 84 percent for plant workers and from 3 to 92 percent for office workers. In 8 areas for plant workers and 12 areas for office workers, more than 50 percent were employed in establishments having retirement pension plans.

—CHARLES RUBENSTEIN

Division of Wage Statistics

<sup>1</sup> Data were collected by field representatives under the direction of the Bureau of Labor Statistics' regional wage analysts. More detailed information on wages and related practices in each of the selected areas is available on request.

The study included machine-tool accessory establishments with 8 or more workers and other machinery establishments with 21 or more workers. Approximately 650,000 workers were employed in the industry in the 29 areas studied.

For Earnings in November 1949, see Monthly Labor Review, May 1950 (p. 527).

## Sugar Refining Industry: Earnings in 1950<sup>1</sup>

AVERAGE EARNINGS in beet-sugar plants and cane-sugar refineries differed by 10 cents an hour, according to a recently completed survey of the sugar-refining industry in the United States at peak production seasons in 1950. In November, beet sugar workers averaged \$1.19 an hour,<sup>2</sup> while workers employed in cane-sugar refineries earned an average of \$1.29 in July.

### Beet Sugar—November 1950

Beet sugar manufacturing plants are concentrated in sugar-beet producing areas extending from Ohio to California. Half of the 78 plants in the industry are located in three States: California, Colorado, and Michigan. Earnings were highest in California, where 97 percent of the workers earned \$1.25 an hour or more (table 1). Only about 20 percent of the workers in the remainder of the country had earnings this high. Plant workers in Michigan, Ohio, and Wisconsin earned 29 cents per hour less, on the average,

than workers in California and 15 cents less than those in the rest of the industry.<sup>3</sup> Almost 25 percent of the workers in this three-State area earned under \$1 an hour as compared to three-tenths of 1 percent in California and 1.5 percent in the rest of the country.

TABLE 1.—Beet sugar manufacturing: Percentage distribution of plant workers by straight-time average hourly earnings,<sup>1</sup> United States and selected regions, November 1950.

Average hourly earnings <sup>1</sup> (in cents)	United States	California	Michigan, Ohio, and Wisconsin	Rest of the United States <sup>2</sup>
75.0 and under 80.0.....	(9)	0.2	0.1	0.3
80.0 and under 85.0.....	0.2	1.0	4.6	5.5
85.0 and under 90.0.....	1.3	1	19.2	2.5
90.0 and under 95.0.....	4.4	26.9	16.7	30.2
95.0 and under 100.0.....	7.5	10.5	9.2	31.5
100.0 and under 105.0.....	4.6	3.7	18.3	7.8
105.0 and under 110.0.....	14.4	29.3	2.2	2.3
110.0 and under 115.0.....	29.7	26.2	1.1	1.9
115.0 and under 120.0.....	12.1	4.4	8	12.5
120.0 and under 125.0.....	10.5	37.1	4.0	
125.0 and under 130.0.....	6.4			
130.0 and under 135.0.....	2.1			
135.0 and under 140.0.....	15.2			
140.0 and over.....				
Total.....	100.0	100.0	100.0	100.0
Number of workers.....	21,761	3,985	4,838	12,938
Median rate.....	\$1.19	\$1.33	\$1.04	\$1.19

<sup>1</sup> Excludes premium pay for overtime and night work.

<sup>2</sup> Colorado, Idaho, Iowa, Kansas, Minnesota, Montana, Nebraska, Oregon, South Dakota, Utah, Washington, and Wyoming.

<sup>3</sup> Less than 0.05 percent.



Over 55 percent of the workers in California were earning between \$1.25 and \$1.35 per hour. This concentration of workers around the regional average was noticeable in all regions studied. About 43 percent were earning between \$1 and \$1.10 in Michigan, Ohio, and Wisconsin, and more than half of the workers in the remainder of the United States were earning between \$1.10 and \$1.20.

### Cane Sugar—July 1950

In contrast to beet-sugar plants, nearly all the cane-sugar refineries are located on the east coast or in the South. Earnings in southern plants were lower than in other plants in the industry (table 2). Plant workers in western Louisiana averaged 82 cents an hour and those in Georgia, eastern Louisiana, and Texas averaged

TABLE 2.—Cane sugar refining: Percentage distribution of plant workers by straight-time average hourly earnings,<sup>1</sup> United States and selected regions, July 1950

Average hourly earnings <sup>1</sup> (in-cents)	United States			Georgia, Texas, and Louisiana (East of the Mississippi)			Louisiana (West of the Mississippi)			Rest of the United States <sup>2</sup>		
	Total	Packers and auxiliary workers	Other plant workers	Total	Packers and auxiliary workers	Other plant workers	Total	Packers and auxiliary workers	Other plant workers	Total	Packers and auxiliary workers	Other plant workers
75.0 and under 80.0.....	3.0	3.0	2.9	2.3	10.7	6.6	38.0	48.9	38.4	.....	.....	.....
80.0 and under 85.0.....	3.3	5.9	2.7	4.3	5.7	4.0	33.9	41.4	32.8	.....	.....	.....
85.0 and under 90.0.....	2.1	2.2	2.0	4.3	24.0	15.0	11.5	6.9	12.2	.....	.....	.....
90.0 and under 95.0.....	5.1	7.8	4.6	16.7	24.0	15.0	7.0	2.1	7.9	.....	.....	.....
95.0 and under 100.0.....	8.8	10.6	4.9	20.6	33.4	17.7	2.0	.7	2.1	.....	.....	.....
100.0 and under 105.0.....	8.5	6.9	8.9	30.0	22.0	31.6	2.6	.....	3.0	0.1	.....	0.1
105.0 and under 110.0.....	2.7	1.5	2.9	8.7	3.1	10.0	2.4	.....	2.7	.1	0.8	.....
110.0 and under 115.0.....	3.3	13.3	1.5	4.5	.....	5.4	.....	.....	3	3.2	21.1	.....
115.0 and under 120.0.....	2.4	10.4	1.0	2.7	.....	3.3	.....	.....	.1	2.6	18.7	.1
120.0 and under 125.0.....	6.2	9.5	5.6	2.9	.....	3.4	.....	.....	.1	8.4	14.9	7.2
125.0 and under 130.0.....	8.1	7.1	8.3	1.5	.....	1.9	1.4	.....	1.6	11.7	11.5	11.8
130.0 and under 135.0.....	16.2	8.9	17.6	1.0	.....	1.3	.1	.....	.1	24.7	14.4	28.5
135.0 and under 140.0.....	7.2	1.9	8.2	1.0	.....	1.2	.....	.....	.....	10.7	3.1	12.0
140.0 and over.....	26.1	11.0	28.9	3.8	.....	4.6	.6	.....	.7	38.5	17.5	42.3
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of workers.....	15,132	2,337	12,795	4,172	736	3,436	1,184	145	1,039	9,776	1,456	8,320
Median rate.....	\$1.29	\$1.14	\$1.31	\$1.01	\$0.96	\$1.02	\$0.82	\$0.82	\$0.82	\$1.34	\$1.24	\$1.37

<sup>1</sup> Excludes premium pay for overtime and night work.

<sup>2</sup> California, Indiana, Maryland, Massachusetts, New York, Pennsylvania, and Wisconsin.

<sup>3</sup> Less than 0.05 percent.

\$1.01, as contrasted with \$1.34 in the rest of the country. More than half of the workers in Georgia, Louisiana, and Texas were earning less than \$1 per hour, but no workers averaged less than this amount in the rest of the country.

There was a heavy concentration of workers around the average in cane sugar similar to that in beet sugar plants. Over four out of every five workers were earning between 75 and 90 cents in western Louisiana. In Georgia, Texas, and eastern Louisiana, about two-thirds of the workers earned between 90 cents and \$1.05, while in the rest of the country nearly half of the workers' earnings were between \$1.25 and \$1.40 an hour.

About 15 percent of the workers were reported as packers and other auxiliary workers.<sup>4</sup> This group averaged \$1.14 as compared with \$1.31 for other plant workers. Eleven of the 22 cane sugar plants reported base rates for common or unskilled labor of \$1.20 or higher; in contrast, only 4 plants

had base rates that high for packers and other auxiliary workers.

—A. N. JARRELL

Division of Wage Statistics

<sup>1</sup> This study, conducted by mail questionnaire, was made at the request of the Wage and Hour and Public Contracts Division of the Department of Labor in connection with determining the prevailing minimum rate for the industry under the provisions of the Walsh-Healey Public Contracts Act of 1936. It included establishments engaged in the melting and refining of raw cane sugar and those engaged in the manufacture of sugar from sugar beets.

Establishments included in the survey were requested to exclude overtime and shift premium pay from earnings data, but to include earnings under incentive systems of wage payment.

<sup>2</sup> Medians (rates above and below which half of the workers are found) rather than weighted arithmetic averages are used in this report.

<sup>3</sup> Includes plants located in Colorado, Idaho, Iowa, Kansas, Minnesota, Montana, Nebraska, Oregon, South Dakota, Utah, Washington, and Wyoming.

<sup>4</sup> Packers and other auxiliary workers are defined as those employees who perform the following: wrapping of sugar tablets; packaging, filling, sealing (by sewing or other operation), marking, checking, weighing, inspecting and preparing for shipment bags, cartons, sacks, and other containers of sugar; sewing press leaves, sweeping up spillage, and handling of empty cartons, bags, sacks, and other containers.



## Escalator Wage Adjustments Based on Price of Product

SLIDING-SCALE SYSTEMS, whereby wages are adjusted to movements in the price of the commodity produced, are exceedingly infrequent in American industry today, according to a study made by the Bureau of Labor Statistics.<sup>1</sup> The system is associated usually with nonferrous metal mining, and even there, it is rapidly disappearing. In general, the sliding-scale system was initially incorporated into union agreements in the iron and steel products industry in the 1860's and later extended to coal mining and other mineral and metal mining. In recent years, however, the sliding-scale plan has been written into very few agreements. Elimination of arrangements of this kind appears to have been due to workers' desire for stability in wage rates, a disinclination to share losses, and the development of the concept of a living wage, in terms of not necessarily tying wages to a commodity price level but in terms of higher living standards.

The Bureau of Labor Statistics has on file a total of 50 collective-bargaining agreements in effect during 1951 in the nonferrous metal mining industries. Only seven of these contracts contain clauses relating wages to the price of the commodity produced. Of the seven contracts, five in the lead and zinc mining industries had automatic sliding-scale provisions. Two contracts, one in copper ore mining and the other in gold and silver mining, permit renegotiation of wages whenever prices of the product produced change. Two additional contracts, in copper ore mining, suspended the wage clause relating to commodity price for the duration of the contract.

Typical of existing clauses is the following: "Daily wage rates based upon the market price for zinc concentrates are contained in Schedule A annexed, and shall thereafter be increased or decreased on the basis of each \$1, or fraction thereof increase or decrease in the price of zinc concentrates at the rate of eight cents or fraction thereof per shift, between zinc concentrate prices of \$72.50 and \$120. Whenever the price of zinc concentrates falls below \$72.50 or exceeds \$120, no changes shall be made in wage rates."

### History of Sliding-Scale Plans

The application of the sliding scale practice in a few selected industries is summarized below.

**Iron and Steel.** A system regarding wage rates and conditions of work incorporating the sliding-scale principle was first introduced in the iron mills of Western Pennsylvania in 1865. From the beginning, agreements in the iron industry had provisions whereby wages would vary directly and automatically with price changes for standard iron billets. This system, generally used in the iron industry and in some portions of the steel industry, continued through the 1890's.

**Anthracite Coal.** Agreement initiating the sliding-wage system in the anthracite industry was first made in 1869. It provided basic rates and selling prices and specified percentage wage increases for miners when coal prices advanced above the base, or correspondingly, reductions when prices dropped. The system was abolished by mutual consent of the union and operators in 1912. The union was dissatisfied with the sliding scale system because the system was too complex for its members and also, because it could not check operators' price computations. Operators, on the other hand, thought the system too cumbersome, and one requiring elaborate bookkeeping.

**Cotton Textiles, Fall River, Mass.** A sliding-scale plan, based upon the margin between the cost of the cotton raw material and the price of a specified amount of cloth made from the cotton, was first started in the cotton textile industry of Fall River, Mass., in 1905. The plan continued in operation until 1909 when it was discontinued.

**Nonferrous Metal Mining and Smelting.** Wage payment in the silver mines of the West, based on the sliding-scale wage, first appeared in 1893 and continued for many years until 1938. The practice was also extended into other nonferrous mining activities, especially to copper mining. In this industry in Butte, Mont., the sliding-scale wage plan was first adopted in April 1907 and continued until 1917, when the Metal Mine Workers' Union called a strike requesting, among



other demands, that the sliding-scale system should be abandoned. The strike was unsuccessful on this issue. The sliding-scale system continued after renewed union organization resulted in a signed agreement with the Anaconda Copper Co. in 1934. In 1941, when a state of national emergency was declared, maximum prices of copper were fixed by the Government. As a result, the 1941 agreement between Anaconda and the union suspended the sliding-scale method of determining wages. In Arizona, the sliding-scale system in the copper mining industry was first applied in 1910 and maintained through the early 1940's. In the Michigan copper mines, it was first used in 1933.

The general practice of gearing wages to prices declined appreciably in the early 1940's. The 1940 convention of the International Union of Mine,

Mill, and Smelter Workers (Ind.)<sup>2</sup> cited the sliding-scale "as being an inequitable arrangement for labor" and requested its abolition. Particularly the union said, "price control in copper, lead, and zinc had the effect of freezing our wages." By 1943-44 abandonment of the system was well advanced.

**Fishing Industry.** This industry is characterized by a wage payment system under which, in effect, fishermen's wages are determined by the price of fish. Today, fisherman are frequently paid in shares based on the sale of fish, sometimes working on a cooperative basis with the captain of the boat. In the past, fishermen were often paid hourly or piece rate wages in cash.

<sup>1</sup> Based on agreements on file in the Bureau as analyzed by the Division of Industrial Relations.

<sup>2</sup> Affiliated with the CIO in 1940 and expelled in 1950.

## Wage Chronology No. 16: Chicago Printing, 1939-50<sup>1</sup>

CHANGES in hourly and weekly rates and in related wage practices, negotiated since January 1, 1939, for two basic crafts in the Chicago commercial and newspaper printing industry are presented in this chronology.

In commercial (book and job) printing, the two groups covered are (1) hand compositors and typesetting machine operators, represented by the Chicago Typographical Union No. 16, an affiliate of the International Typographical Union (AFL); and (2) cylinder pressmen, represented by the Chicago Printing Pressmen's Union No. 3, affiliated with the International Printing Pressmen and Assistants' Union of North America (AFL). Most commercial printing establishments, operating under the terms of union agreements, are represented in negotiations by the Franklin Association of Chicago.

In newspaper printing, the two basic crafts covered are (1) hand compositors and machine operators, also represented by Chicago Typographical Union No. 16; and (2) pressmen, represented by the Chicago Web Printing Pressmen's Union No. 7. Chicago Newspaper Publishers' Association negotiates on behalf of five English-text daily newspapers.

Separate contracts are negotiated for each of the four groups. The expiration dates of the agreements currently in effect are:

### Commercial:

Hand compositors, machine operators—October 6, 1951.

Cylinder pressmen—December 15, 1952 (re-opening January 15, 1952).

### Newspaper:

Hand compositors, machine operators—January 15, 1952.

Pressmen—April 2, 1952.

<sup>1</sup> For purpose and scope of wage chronology series, see Monthly Labor Review, December 1948. Reprints of this chronology are available upon request.



## A—Changes in Wage Rates and Weekly Hours for Day Shifts

Effective date	Increase in hourly rates (cents)				Standard weekly hours of work <sup>1</sup>			
	Commercial		Newspapers		Commercial		Newspapers	
	Hand compositors, machine operators <sup>2</sup>	Cylinder pressmen <sup>3</sup>	Hand compositors, machine operators	Pressmen	Hand compositors, machine operators	Cylinder pressmen <sup>3</sup>	Hand compositors, machine operators	Pressmen
1939: June 12			5.2				36.25	
Sept. 18				4.9				37.5
1940: Jan. 1			2.8				36.25	
Mar. 4	5.0				40.0			
1941: Jan. 1			2.8				36.25	
Mar. 4	2.5				40.0			
June 25		5.0				40.0		
Nov. 15			2.8				36.25	
1942: Feb. 3				12.7				37.5
June 25		2.5				40.0		
July 1			2.8				36.25	
Aug. 31	2.5				40.0			
1943: Apr. 1			9.4				36.25	
June 7				5.2				37.5
July 12		2.5				40.0		
1944: Mar. 18	9.5				40.0			
July 12		2.5				40.0		
Oct. 21			9.1				36.25	
1945: July 12		5.0				40.0		
Sept. 4	10.0				40.0			
Oct. 21			24.3				36.25	
Oct. 24	11.0				37.5			
Dec. 3				20.0				37.5
Dec. 30				3.5				37.5
1946: Jan. 1		10.0				40.0		
Mar. 4	6.0				36.25			
Apr. 3				5.3				37.5
May 6		16.8				36.25		
Sept. 4	39.5				36.25			
Oct. 21			27.6				36.25	
1947: Jan. 20		39.5				36.25		
Apr. 3				31.3				37.5
1948: Jan. 1		16.5				36.25		
Apr. 3				24.0				37.5
June 27	32.8				36.25			
1949: Jan. 1		13.5				36.25		
Apr. 3				16.0				37.5
Sept. 19			27.6				36.25	
1950: Feb. 6	5.5							
Feb. 20		7.8						
July 23 <sup>4</sup>			5.5				36.25	
Aug. 28 <sup>5</sup>				5.3				37.5
Dec. 28 <sup>6</sup>				5.3				37.5
1951: Feb. 15 <sup>4</sup>			6.9				36.25	
Feb. 20		9.7				36.25		
Apr. 3 <sup>6</sup>				6.7				37.5

<sup>1</sup> Hours shown represent net working time, exclusive of lunch periods. In effect on Jan. 1, 1939: 40 hours for commercial crafts, 37.5 hours for newspaper crafts.

<sup>2</sup> During the period covered by this chronology, machine operators received a weekly differential of \$1.40 above the rates paid to hand compositors. Thus, when weekly hours were reduced in October 1945 and in March 1946, the resulting increases in hourly rates for machine operators were slightly larger than for hand compositors (2/10 of a cent).

<sup>3</sup> Increases shown for cylinder pressmen reflect changes in basic wage scales for journeymen. In Chicago the basic rate was paid for work on the following equipment throughout the period covered: Second position when running tandem or 4 press beds; 2-color automatic Harris presses; 2-color

Harris-Seybold-Potter presses; 2-color Miller presses; 2-color multicolor ticket presses; any 2 of the following presses in combination: Automatic press, Harris single press, Miehle horizontal press, Miehle vertical press, Miller simplex press, Osterlind press, Stokes and Smith press, 2 presses up to 46 by 65 inches; 3 patent inside blanket presses, 1 press with Upham attachments; 1 double cylinder perfecting press; 1 press over 45 by 38 inches and not over 3 job presses; 2 automatic presses; 1 double cylinder flat-bed 2-color press. Special rates were paid for work on other types of presses. Changes in these rates did not always correspond to changes in the basic scale.

<sup>4</sup> By agreement of November 1950.

<sup>5</sup> By arbitration award of Dec. 28, 1950, affirmed Feb. 3, 1951.



B—Hourly and Weekly Rates<sup>1</sup> for Day Shifts

Effective date	Commercial				Newspapers			
	Hand compositors <sup>2</sup>		Cylinder pressmen <sup>3</sup>		Hand compositors, machine operators		Pressmen	
	Hourly rate	Weekly rate	Hourly rate	Weekly rate	Hourly rate	Weekly rate	Hourly rate	Weekly rate
1939: Jan. 1 <sup>4</sup>	\$1.350	\$54.00	\$1.350	\$54.00	\$1.493	\$56.00	\$1.184	\$44.40
June 12					1.545	56.00		
Sept. 18							1.233	46.25
1940: Jan. 1					1.572	57.00		
Mar. 4	1.400	56.00						
1941: Jan. 1					1.600	58.00		
Mar. 4	1.425	57.00						
June 25			1.400	56.00				
Nov. 15					1.628	59.00		
1942: Feb. 3							1.360	51.00
June 25			1.425	57.00				
July 1					1.655	60.00		
Aug. 31	1.450	58.00						
1943: Apr. 1					1.749	63.40		
June 7							1.412	52.95
July 12			1.450	58.00				
1944: Mar. 18	1.545	61.80						
July 12			1.475	59.00				
Oct. 21					1.840	66.70		
1945: July 12			1.525	61.00				
Sept. 4	1.645	65.80						
Oct. 21					2.083	75.50		
Oct. 24	1.755	65.80						
Dec. 3							1.612	60.45
Dec. 30							1.647	61.75
1946: Jan. 1			1.625	65.00				
Mar. 4	1.815	65.80						
Apr. 3							1.700	63.75
May 6			1.793	65.00				
Sept. 4	2.210	80.11						
Oct. 21					2.359	85.50		
1947: Jan. 20			2.188	79.32				
Apr. 3							2.013	75.50
1948: Jan. 1			2.353	85.30				
Apr. 3							2.253	84.50
June 27	2.538	92.00						
1949: Jan. 1			2.488	90.19				
Apr. 3							2.413	90.50
Sept. 19					2.635	95.50		
1950: Feb. 5	2.593	94.00						
Feb. 20			2.566	93.00				
July 23 <sup>5</sup>					2.690	97.50		
Aug. 28 <sup>6</sup>							2.467	92.50
Dec. 28 <sup>6</sup>							2.520	94.50
1951: Feb. 15 <sup>7</sup>					2.759	100.00		
Feb. 20			2.662	96.50				
Apr. 3 <sup>8</sup>							2.587	97.00

<sup>1</sup> Weekly rates are based on standard hours, as shown in table A.<sup>2</sup> Machine operators received an additional \$1.40 a week throughout the period covered by this chronology. On an hourly basis, this differential amounted to 3.5 cents from Jan. 1, 1939, to Oct. 23, 1945; 3.7 cents from Oct. 24, 1945, to Mar. 3, 1946; and 3.9 cents thereafter.<sup>3</sup> See footnote 2, table A.<sup>4</sup> Rates in effect at beginning of year.<sup>5</sup> By agreement of November 1950.<sup>6</sup> By arbitration award of Dec. 28, 1950, affirmed Feb. 3, 1951.



## C—Premium Pay for Night Work (Cents Per Hour in Excess of Day Rates)

Effective date	Commercial					Newspapers		
	Hand compositors <sup>1</sup>		Cylinder pressmen <sup>2</sup>			Hand compositors, machine operators		Pressmen <sup>3</sup>
	First night shift <sup>4</sup>	Second night shift <sup>5</sup>	Night work <sup>6</sup>	On 3 shift basis		First night shift <sup>4</sup>	Second night shift <sup>5</sup>	Night work <sup>6</sup>
				First night shift <sup>4</sup>	Second night shift <sup>5</sup>			
1939: Jan. 1	10.0	30.7	10.0	19.7	30.7	10.7	50.7	14.3
June 12						11.0	45.5	
Sept. 18								14.7
1940: Jan. 1						11.1	46.1	
Mar. 4	10.0	31.4						
1941: Jan. 1						11.0	46.7	
Mar. 4	10.0	31.8						
June 25			10.0	20.9	31.4			
Nov. 15						11.0	47.2	
1942: Feb. 3								15.9
June 25								
July 1						11.1	47.8	
Aug. 31	10.0	32.1						
1943: Apr. 1						11.0	49.8	
June 7								16.2
July 12								
1944: Mar. 18	10.0	33.5						
July 12								
Oct. 21						11.0	51.7	
1945: July 12			10.0	20.8	33.2			
Sept. 4	10.0	34.9						
Oct. 21						15.1	61.7	
Oct. 24	10.6	39.3						
Dec. 3								17.6
Dec. 30								22.1
1946: Jan. 1			10.0	21.5	34.6			
Mar. 4								
Apr. 3	11.1	33.3						22.5
May 6			11.0	25.0	33.0			
Sept. 4	14.0	41.1						
Oct. 21						15.1	67.4	
1947: Jan. 20			12.8	28.1	37.6			
Apr. 3								30.1
1948: Jan. 1			13.8	32.3	42.5			
Apr. 3								31.8
June 27	14.0	44.9						
1949: Jan. 1			13.8	33.2	44.1			
Apr. 3								33.0
Sept. 19						15.2	73.3	
1950: Feb. 6	14.0	45.6						
Feb. 20			13.8	33.8	45.0			
July 23						15.1	74.3	
Aug. 28								33.3
Dec. 28								33.7
1951: Feb. 15						15.1	75.8	
Feb. 20			13.8	34.5	46.1			
Apr. 3								34.2

<sup>1</sup> Because of the \$1.40 weekly differential received by machine operators on both day and night shifts, the premium for night work was greater for this occupation than for hand compositors. The difference amounted to 1.5 cents from Jan. 1, 1939, to Oct. 23, 1945, and  $\frac{1}{2}$  of a cent from Oct. 24, 1945, to Mar. 3, 1946. On Mar. 4, 1946, when day-shift hours were reduced to 35.25 a week, while second night-shift hours remained constant, the additional premium paid machine operators was reduced by  $\frac{1}{2}$  of a cent an hour.

<sup>2</sup> See footnote 2, table A.

<sup>3</sup> Exclusive of operators of color and gravure presses who receive extra night-work premium pay.

<sup>4</sup> The standard workweek for hand compositors and machine operators on the first night shift was the same as for day shifts in both commercial and

newspaper printing (table A). First night-shift hours for commercial pressmen on 2-shift operation were 40 hours up to May 6, 1946, and 36½ hours thereafter; on 3-shift operation—37½ hours up to May 6, 1946, and 33¾ hours thereafter.

<sup>5</sup> In commercial printing, the standard workweek for hand compositors and machine operators on second-night shift was 35 hours up to Oct. 21, 1945 and 32½ hours thereafter; for pressmen on 3-shift operation—35 hours up to May 6, 1946, and 32½ hours thereafter. In newspaper printing, where night work is a more regular part of operations, the workweek for hand compositors on second night shifts was 30 hours and for pressmen on night shifts 35 hours throughout the period covered.



## D—Hourly and Weekly Rates for Night Shifts in Newspaper Printing

Effective date	Hand compositors and machine operators				Pressmen <sup>1</sup>	
	First night shift		Second night shift		Night work	
	Hourly rate	Weekly rate <sup>2</sup>	Hourly rate	Weekly rate <sup>2</sup>	Hourly rate	Weekly rate <sup>2</sup>
1939: Jan. 1.....	\$1. 600	\$60. 00	\$2. 000	\$60. 00	\$1. 327	\$46. 45
June 12.....	1. 655	60. 00	2. 000	60. 00		
Sept. 18.....					1. 380	48. 30
1940: Jan. 1.....	1. 683	61. 00	2. 033	61. 00		
1941: Jan. 1.....	1. 710	62. 00	2. 067	62. 00		
Nov. 15.....	1. 738	63. 00	2. 100	63. 00		
1942: Feb. 3.....					1. 519	53. 15
July 1.....	1. 766	64. 00	2. 133	64. 00		
1943: Apr. 1.....	1. 859	67. 40	2. 247	67. 40		
June 7.....					1. 574	55. 10
1944: Oct. 21.....	1. 950	70. 70	2. 357	70. 70		
1945: Oct. 21.....	2. 234	81. 00	2. 700	81. 00		
Dec. 3.....					1. 788	62. 60
Dec. 30.....					1. 868	65. 40
1946: Apr. 3.....					1. 925	67. 40
Oct. 21.....	2. 510	91. 00	3. 033	91. 00		
1947: Apr. 3.....					2. 314	81. 00
1948: Apr. 3.....					2. 571	90. 00
1949: Apr. 3.....					2. 743	96. 00
Sept. 19.....	2. 786	101. 00	3. 367	101. 00		
1950: July 23 <sup>3</sup> .....	2. 841	103. 00	3. 433	103. 00		
Aug. 28 <sup>4</sup> .....					2. 800	98. 00
Dec. 28 <sup>5</sup> .....					2. 857	100. 00
1951: Feb. 15 <sup>5</sup> .....	2. 910	105. 50	3. 517	105. 50		
Apr. 3 <sup>5</sup> .....					2. 929	102. 50

<sup>1</sup> Exclusive of operators of color and gravure presses, who receive extra night-work premium pay.

<sup>2</sup> Based on 37½-hour week up to June 12, 1939, and 36¼ hours thereafter.

<sup>3</sup> Based on 30-hour week.

<sup>4</sup> Based on 35-hour week.

<sup>5</sup> By agreement of November 1950.

<sup>6</sup> By arbitration award of Dec. 28, 1950, affirmed February 3, 1951.

E—Related Wage Practices<sup>1</sup>

Effective date	Commercial		Newspapers	
	Hand compositors, machine operators	Cylinder pressmen	Hand compositors, machine operators	Pressmen
<i>Overtime Pay—Daily</i>				
Jan. 1, 1939 (in effect).	Time and one-half for first 3 hours beyond regular shift; <sup>2</sup> double time thereafter. Time and one-half for work during the regular scheduled lunch period and prior to regular starting time.	Time and one-half for first 3 hours beyond regular shift; <sup>2</sup> double time thereafter. Time and one-half for work during the regular scheduled lunch period and double time for work prior to the regular starting time.	Time and one-half for work beyond regular shift <sup>4</sup> and for work between quitting time and the regular starting time if elapsed time less than 11 hours.	Time and one-half for work beyond regular shift. <sup>5</sup> Night overtime rate paid day workers after 7 p. m.
<i>Premium Pay for Work on Sixth Day or Saturday</i>				
Jan. 1, 1939 (in effect).	Double time for work on sixth day.	Time and one-half for 4 hours work on Saturday between 7:30 a. m. and 12 noon; double time thereafter.	Time and one-half for work on nonscheduled shift or on sixth day.	No provision covering work on sixth day or Saturday.
Mar. 4, 1940....	Added: double time for work after 5 p. m. on Saturday shifts.			
Sept. 1, 1947....				
Sept. 1, 1948....		Double time for all Saturday work.		Time and one-half for work on sixth day.

See footnotes at end of table.



E—Related Wage Practices <sup>1</sup>—Continued.

Effective date	Commercial		Newspapers	
	Hand compositors, machine operators	Cylinder pressmen	Hand compositors, machine operators	Pressmen
<i>Premium Pay for Work on Sunday</i>				
Jan. 1, 1909 (in effect).	Double time for regular shift hours; triple time thereafter.	Double time for all Sunday work.	Overtime rate paid for work on afternoon papers where Sunday editions are not published.	Time and one-half for work between 6 a. m. and 6 p. m. on Sundays.
<i>Holiday Pay</i>				
Jan. 1, 1909 (in effect).	Double time for work in regular shift hours on 6 holidays; triple time thereafter. No pay for holidays not worked.	Double time for work on 6 holidays. No pay for holidays not worked.	No provision for premium pay for holiday work.	Time and one-half for work between 6 a. m. and 6 p. m. on 5 holidays.
Feb. 3, 1942.				Added: 1 holiday.
Sept. 4, 1945.	3 paid holidays established. Double time (total) for work on paid holidays.			
Dec. 26, 1945.		3 paid holidays established. Double time (total) for work on paid holiday.		
Sept. 4, 1946.	3 added paid holidays (total 6)			
Oct. 21, 1946.			6 paid holidays at straight-time pay when scheduled to work but not required to work. Double time (total) for work on paid holiday.	
Jan. 20, 1947.		3 added paid holidays (total 6)		
Apr. 3, 1947.				6 paid holidays at straight-time pay when scheduled to work but not required to work. Double time (total) for work on paid holiday.
June 27, 1948.	Changed to: Double time plus holiday pay for holidays worked.			
<i>Paid Vacations</i>				
Jan. 1, 1909 (in effect).	No provision for paid vacations.	No provision for paid vacations.	No provision for paid vacations.	No provision for paid vacations.
July 21, 1941.			Paid vacations established; 1 week for employees holding positions during the entire previous year; other employees granted 1 day for each 37 days worked.	
July 1, 1942.			Increased to: 2 weeks for employees holding positions during the entire previous year; others granted 1 day for each 26 days worked.	
Aug. 31, 1942.	Credit system inaugurated with specific amount credited each employee per shift worked in order to provide 1 week's vacation with pay for an employee working the entire year.			
July 12, 1943.		Credit system inaugurated with specific amount credited each employee per shift worked in order to provide 1 week's vacation with pay for an employee working the entire year.		

See footnotes at end of table.



E—Related Wage Practices <sup>1</sup>—Continued.

Effective date	Commercial		Newspapers	
	Hand compositors, machine operators	Cylinder pressmen	Hand compositors, machine operators	Pressmen

Paid Vacations—Continued				
Apr. 3, 1944.....				Paid vacations established; 1 week for employees who held regular situations during the entire previous calendar year; others, 1 day for each 52 days worked.
Apr. 1, 1945.....				Increased to: 2 weeks for employees holding positions during the entire previous year; others, 1 day for each 26 days worked.
Sept. 4, 1945.....	Increased credit schedule to provide 2 weeks' vacation with pay.			
Oct. 21, 1945.....			Increased to: 3 weeks for employees holding positions during the entire previous calendar year; others, 1 day for each 17 days worked.	
Dec. 3, 1945.....				Increased to 3 weeks for employees holding positions during the entire previous calendar year; others, 1 day for each 17 days worked.
Jan. 1, 1946.....		Increased credit schedule to provide 2 weeks' vacation with pay.		
Sept. 19, 1949.....			Changed to: 3 weeks for employees working minimum of 225 straight-time shifts during previous calendar year; others, 1 day for each 16 days worked.	
Feb. 6, 1950.....	Increased vacation credits to provide 3 weeks' vacation in 1951.			
May 1, 1951.....		Increased vacation credits to provide 3 weeks' vacation		

Reporting Time				
Jan. 1, 1939 (in effect).	Full day's pay guaranteed men employed after regular starting time or laid off before regular quitting time. Four hours double time pay guaranteed for work on Sundays and holidays.	Full day's pay guaranteed to employees reporting for work, or employed after the regular starting time, or laid off before the regular quitting time.	No provision for reporting time.	Full day's pay guaranteed employees on afternoon newspapers when called to work on Sundays.

Call-Back Allowance				
Jan. 1, 1939 (in effect).	\$1 in addition to overtime rate for hours worked when called back to work at other than regular hours.	No provision for call-back allowance.	\$1 in addition to overtime rate for hours worked when called back after completing work on regular shift.	No provision for call-back allowance.
June 27, 1948.....	Increased to: \$3.....			

Accident and Sickness Benefits				
Apr. 1, 1948.....	No provision for accident and sickness benefits.	Employer-paid benefits of \$40 a week or 3% of this amount if basic earnings are under \$60 for maximum of 13 weeks less benefits received under Workmen's Compensation Act. Payments to start on first day in case of accident and eighth day in case of illness.	No provision for accident and sickness benefits.	No provision for accident and sickness benefits.



E—Related Wage Practices<sup>1</sup>—Continued.

Effective date	Commercial		Newspapers	
	Hand compositors, machine operators	Cylinder pressmen	Hand compositors, machine operators	Pressmen
<i>Severance Allowance</i>				
Jan. 1, 1939.....	No provision for severance pay....	No provision for severance pay....	No provision for severance pay....	No provision for severance pay....
Oct. 21, 1945.....			Severance allowance established providing 1 week's pay for 1 year of service, 2 weeks for 2 years, 3 weeks for 3 years, and 4 weeks for 4 or more years, to regular situation holders dismissed by reason of merger or permanent suspension of newspaper.	

<sup>1</sup> The last entry under each item represents the most recent change.  
<sup>2</sup> Length of day shift and first night shifts: 8 hours up to Oct. 24, 1945; 7½ hours—Oct. 24, 1945, to Mar. 4, 1946; 7¼ hours thereafter.  
<sup>3</sup> Length of day shift and first night shift on 2-shift operation: 8 hours up to May 6, 1946; 7¼ hours thereafter. On 3-shift operation—day shift 8 hours; first night shift 7½ hours, and second night shift 7 hours up to May 6, 1946. Thereafter, day shift 7¼ hours, first night shift 6¾ hours, and second night shift 6¼ hours.

<sup>4</sup> Length of day and first night shift: 7¼ hours to June 12, 1939; 7¼ hours thereafter; second night shift (jobster) 4 hours throughout the period covered.  
<sup>5</sup> Length of day shift 7¼ hours; night shift 7 hours.

—JAMES P. CORKERY  
 Division of Wage Statistics

## Wage Chronology No. 11: Aluminum Co. of America<sup>1</sup>

### Supplement 1

WAGE DISCUSSIONS were reopened in November 1950 by the United Steelworkers of America (CIO) and the International Council of Aluminum Workers Unions (AFL) with the Aluminum Co. of America, in accordance with contract terms. The negotiated settlement provided six paid holidays for steelworkers in all plants and a wage increase for five Southern plants. The Aluminum Workers procured a general wage increase in all plants for which they are the collective bargaining agent. These changes, effective in December 1950, supplemented a 10-percent wage increase (reported in the basic chronology) granted to both unions on October 1, 1950.

The 1939–50 chronology is brought up-to-date by the following additions:

<sup>1</sup> See Wage Chronology No. 11—Aluminum Co. of America, 1939–50, Monthly Labor Review December 1950 or BLS Serial No. R. 2015

## A—General Wage Changes

Plant and union <sup>1</sup>	Effective December 1950
Alcoa, Tenn. (USA-CIO).....	\$0.02
Badin, N. C. (USA-CIO).....	.02
Bauxite and Drury, Ark. (2 mines) (USA-CIO). <sup>2</sup>	.02
Bridgeport, Conn. (USA-CIO).....	.00
Chillicothe, Ohio (AWU-AFL).....	.03
Cressona, Pa. (AWU-AFL).....	.03
Davenport, Iowa (AWU-AFL).....	.03
Detroit, Mich. (USA-CIO).....	.00
East St. Louis, Ill. (AWU-AFL).....	.03
Edgewater, N. J. (USA-CIO).....	.00
Lafayette, Ind. (AWU-AFL).....	.03
Massena, N. Y. (AWU-AFL).....	.03
Mobile, Ala. (USA-CIO).....	.02
New Kensington, Pa. (USA-CIO).....	.00
Richmond, Ind. (USA-CIO).....	.00
Point Comfort, Tex. (USA-CIO) <sup>3</sup>	
October 1950.....	(4)
December 1950.....	.03

<sup>1</sup> Union representation in 1951.  
<sup>2</sup> The parties negotiated, subject to Wage Stabilization Board approval, an agreement providing a 9 cent an hour increase plus an additional 1 cent in the base labor classification, effective February 5, 1951, for these operations.  
<sup>3</sup> Organized and covered by collective-bargaining agreement for first time in 1950.  
<sup>4</sup> The general wage change consisted of a 10 cent an hour increase plus an additional 5 cents for laborers and potmen, effective in September 1950 and a supplemental amount sufficient to bring the total to 10 percent in October 1950.



## B—Related Wage Practices

Effective date	Provision	Application, exceptions, and other related matters
<i>Holiday Pay</i>		
Dec. 20, 1950 (USA-CIO)	6 paid holidays established for which workers with 30 days' seniority received 8 hours' straight-time pay. Double time (total) for holidays worked.	Same holidays as listed under entry of Nov. 11, 1939.

## General Wage Regulations 11-12; Ceiling Price Regulations 27-42<sup>1</sup>

WAGE STABILIZATION action by the reconstituted Wage Stabilization Board during May and the first week of June 1951 comprised a new general wage regulation covering agricultural workers, together with two amendments to existing orders; several resolutions clarifying wage directives; and the establishment of a commission to administer wage stabilization in the building and construction industry.

In the field of price stabilization, 16 new ceiling regulations were issued by the Office of Price Stabilization in the month of May.

### Wage Regulations

Procedures for requesting modification of the rules for establishing wage rates for new plants (General Wage Regulation 9) were outlined in an amendment to GWR 9, unanimously adopted on May 15 by the Wage Stabilization Board. Such requests may be made to the Board in cases where the basic regulation rules "would be unworkable or would cause undue hardships in the circumstances of the particular case." In this connection, the Board agreed to consider special treatment for companies who want to extend their insurance and pension plan to new plants in different areas, and to consider giving new plants permission to install their own rate-range wage structures in an area where it was customary to have a single rate for a job classification.

At the same time, the Board issued instructions to its staff (in the form of a resolution) to consider duly the most recent applicable Davis-

Bacon wage rate determination which was based upon rates in effect prior to January 25, 1951. This action was taken pending establishment of policy, and to expedite processing of current cases involving Federal construction covered by the Davis-Bacon Act.

Special wage-control rules for agricultural labor were established by the Board on May 17, when it unanimously approved GWR 11, applying the existing wage stabilization program to agricultural labor. Under this regulation, farm wage rates below 95 cents an hour may be increased up to that level, without reference to the 10-percent formula. In addition, the base date for calculating all farm wage increases was changed from January 15, 1950, to the applicable crop season during 1950.

A revised GWR 10 issued May 23 relaxes conditions which must be met to obtain approval for "tandem" adjustments. The limitation in the original order, which required that adjustments, to be covered, must take effect and be applicable to work performed on or before February 9, 1951, was removed.

In addition, the definition of "tandem relationship" was modified by abolishing the provision which limited tandem relationships to wage changes in the same industry and the same market area. Requirement that a tandem relationship must be shown to have existed over a period of 10 years was changed to 5 years. However, petitions may be filed outlining all of the circumstances for tandem relationship increases for periods of less than 5 years. The amendment further specifies that petitions for approval of tandem wage adjustments must be filed with the nearest Wage and Hour Division of the U. S. Department of Labor.



A 12-member tripartite commission (with an equal number of representatives of labor, industry, and the public), to be responsible for administering wage stabilization in the building and construction industry, was established by GWR 12. This regulation was adopted by the Board and issued on May 31, after consultation with the Secretary of Labor. The new commission, to be known as the Construction Industry Stabilization Commission, will be located in the U. S. Department of Labor, but will function as a part of the WSB and will conform to the "regulations, policies, orders, and decisions" of the Board.

Productivity increases ("improvement factor" or "deferred increases"), executed prior to January 26, 1951, and currently pending before the Board, were authorized for processing in a resolution adopted June 6. This applies if the productivity increases are similar to the United Automobile Workers (CIO) and General Motors Corp. contract provisions, and if the employer affirms that the wage increase will not be used as the foundation of a price increase request.

### Price Regulations

Solid fuels received at, and sold from, dock on the United States bank of Lake Superior and on that part of the west bank of Lake Michigan north of and including Waukegan, Ill., were placed under ceiling prices by Ceiling Price Regulation 27, issued on May 1. It does not apply to sales of vessel fuel or retail sales, nor does it cover pricing of coke, briquettes, or packaged fuel at the producing level.

Specific dollars-and-cents prices, on a delivered basis, for 87 grades of sorted new cotton, linen, and underwear cuttings were outlined in CPR 28, issued May 2 and effective May 7. In addition, the regulation sets forth the procedure to be followed in determining the price of nonspecified sorted grades.

Pure nickel scrap, Monel metal scrap, stainless steel scrap, and other scrap materials containing nickel were placed under specific ceilings by CPR 29 issued May 3, effective May 8. The regulation applies to sales and deliveries by any person, including importers and exporters.

In CPR 30—a companion regulation to CPR 22; (for discussion of this regulation, see *Monthly Labor Review*, June 1951, p. 664)—ceiling prices of

manufacturers of machinery and related manufactured goods,<sup>2</sup> and for the services of installation and erection of machinery were established. CPR 30 was issued May 4 and is effective May 28 (extended to July 2 by amendment 6). Pricing methods used in this regulation are substantially the same as those used in CPR 22.

A formula for computing ceiling prices for sales of imported commodities of importers, wholesalers, and retailers was provided in CPR 31, issued May 4 and effective May 9. In general, sellers of imported commodities, in determining ceiling prices, were ordered not to exceed the mark-up in effect during the base period July 1, 1949, to June 30, 1950.

Ceiling prices for all sales and deliveries of crude petroleum by producers, sellers, and refiners were fixed by CPR 32, issued May 7, effective May 12. The regulation establishes the ceiling price, at the receiving tank level, as the posted purchase price on January 25, 1951.

Ferrotungsten, tungsten metal powder, and other tungsten products were placed under ceiling prices by CPR 33, issued on May 7. It is applicable to any person who sells the products, including importers and exporters.

Various commercial and personal services with an estimated annual sales of \$10 billion, and thousands of amusements and recreational facilities and industrial services were placed under ceiling regulations by CPR 34, issued May 11 and effective May 16. Ceiling prices established are at levels in existence during the base period December 19, 1950, through January 25, 1951. Among the principal services covered are: barbers and beauticians; automobile, radio and household appliance repairs; laundry and dry cleaning and tailor shops; shoe repairers; parking lots; filling stations; checking accounts at banks; bowling alleys, skating rinks, and golf fees; and admissions to amusement parks.

Dollars-and-cents ceilings for sellers of wool, alpaca, and mohair, and of tops and noils which are semimanufactures of wool used as raw material by woolen and worsted mills, were fixed by CPR 35 issued May 9.

Specific dollars-and-cents maximum prices were established for certain used steel drums, raw and reconditioned, and for the services of reconditioning and lining such drums, by CPR 36, issued May 11 and effective May 16.



OPS stabilized cotton-yarn and textile prices at the manufacturing level, by CPR 37, issued May 16, effective May 28 (extended to July 2 by amendment 1). Individually computed ceilings based on pre-Korean levels, adjusted for increases in cost of manufacturing materials and labor, will replace the freeze prices which held textile mills to their highest prices between December 19, 1950, through January 25, 1951.

Specific dollars-and-cents ceiling prices for pulpwood produced in the States of Maine, New Hampshire, Vermont, Massachusetts, Connecticut, and New York (except 9 counties), were established by CPR 38, issued May 16.

For certain marine feed products sold by processors, importers, and distributors, ceiling prices were specified in CPR 39, issued May 24, effective May 29. Products affected are fish scrap, fish meal, fish solubles, and specialty feed products.

Dollars-and-cents ceiling import purchase prices for burlap of specified constructions were fixed by CPR 40 issued May 24. The regulation also outlines a method for computing ceiling prices for sales of burlap after importation.

Sales of shoes by manufacturers (including manufacturer-retailers) were placed under ceilings by CPR 41, issued May 29, effective June 4. Under a formula, prices are based on pre-Korean levels, with adjustments to reflect increases in material and labor costs.

Ceiling prices for certain canned vegetables of the 1951 spring pack were fixed by CPR 42, issued May 31. It establishes ceiling prices for sales by canners of the spring pack of canned asparagus, green beans, spinach, and vegetable greens other than spinach, produced and processed between January 1, 1951, and June 30, 1951.

<sup>1</sup> Sources: Federal Registers vol. 16, No. 86, May 3, 1951, pp. 2891, and 2895; No. 87, May 4, 1951, p. 2945; No. 88, May 5, 1951, p. 4109; No. 89, May 8, 1951, pp. 4184 and 4189; No. 90, May 9, 1951, p. 4273; No. 91, May 10, 1951, p. 4335; No. 93, May 12, 1951, pp. 4446 and 4451; No. 96, May 17, 1951, p. 4612; No. 97, May 18, 1951, p. 4644; No. 98, May 19, 1951, p. 4714; No. 102, May 25, 1951, pp. 4936 and 4938; No. 103, May 26, 1951, p. 4967; No. 104, May 29, 1951, pp. 5010, 5014 and 5015; No. 105, May 30, 1951, p. 5044; No. 106, June 1, 1951, p. 5112; OPS releases May 14, 21 and 28, 1951; and WSB releases, May 16, June 1 and 7, 1951.

<sup>2</sup> In general, commodities covered are: Prime movers, industrial power apparatus, material working and fabricating machinery, machine tools, farm equipment, automotive equipment and parts (with the exception of passenger automobiles), insulated electric wire and cable, construction and mining machinery, electrical equipment, railroad and street railway equipment, auxiliary industrial equipment, forgings, screw machine products, stampings, fabricated structural steel shapes, plates and bars, industrial, pharmaceutical, optical and laboratory glassware, marine equipment, aircraft parts, related equipment of various kinds, and adjuncts, subassemblies and parts for the foregoing.

## State Court Injunctions in Labor-Management Disputes

SEVENTEEN STATES currently have restrictions upon labor injunctions in their courts.<sup>1</sup> Few of these anti-injunction laws are nearly as comprehensive as the Federal Norris-LaGuardia Act of 1932; several of them establish only one or two of the procedural restrictions of that law; and the most frequently duplicated of the Federal restrictions are those curbing *ex parte* restraining orders and providing for jury trial in contempt cases. The effectiveness and scope of these State laws are described in a document issued in connection with Senate Resolution 140 of the 81st Congress, 2d Session. This report, from which the following information was obtained, is the work of four universities<sup>2</sup> undertaken with grants of funds from the Subcommittee on Labor-Management Relations<sup>3</sup> authorized by the Senate Rules and Administration Committee.

A section of the report, dealing with injunctions in Federal courts since the enactment of the Norris-LaGuardia Act states: "Examination of the practice in the Federal courts in equity actions growing out of labor disputes and of their decisions in these cases leaves little doubt that the . . . act has pretty well accomplished its purposes."

None of the State anti-injunction laws have been held unconstitutional, the report pointed out. To the extent that they either copy or parallel provisions of the Norris-LaGuardia Act, these provisions control the procedure in the labor injunction cases of the 17 States listed. In the other States, the Federal law is important in the State courts only to the extent that the latter voluntarily follow Federal example. The report continues: "It is not surprising, hence, that there is a somewhat different story to be told regarding injunctions in labor cases in the State courts from that applying to the Federal courts."

Conclusions, which follow, relate to injunction actions (other than those premised upon the Taft-Hartley Act) against unions in which the plaintiffs were employers or associations of employers.

(1) Injunctions issued in State courts have decreased in number far less than those in the Federal courts. Some doubt exists whether there has been any decrease, but the author of the



report believes that the volume has been appreciably less than in the 1920's. There is no doubt that the number of injunctions applied for, but denied, has increased greatly.

(2) Wide differences exist between regions and States in the number of injunctions issued in labor cases. In addition, variations are considerable as between different years for the same State.

(3) Ex parte restraining orders have become increasingly uncommon in most State courts, but remain the standard procedure in the Los Angeles and Southeastern States areas. However, restraining orders of this type are reported in all of the regional studies made for this report.

(4) Full hearings continue to be the exception, even when injunctions are not issued ex parte, and relatively few such cases extend beyond the trial courts. Lack of full hearings, in which witnesses testify in open court and are subject to cross examination, does not result from any "abuse" of the injunction procedure by the courts. Actually, the nature of labor-management disputes is the cause. Such disputes are usually short and all pending legal proceedings are dismissed upon settlement of a strike.

(5) Instances of other "abuses" have occurred in recent years but have tended to become less frequent than in earlier years. Complaints still are made of the issuance of injunction orders without supporting facts and of long delays in disposition of injunction cases. Some of these complaints can be supported, but they have clearly declined in seriousness. Reversals or modifications of orders by the trial court are usually based on facts which the court ascertained were different from those that had been assumed. Reversals on facts also occur in appellate courts; they are usually on questions of law. The report continues that "some reversals reflect what appears to have been a complete flouting of the law, as laid down in Supreme Court decisions." Regarding contempt proceedings under labor injunctions, few complaints have been raised in recent years.

(6) Principal factors which account for the trends in injunction orders against unions in employer-plaintiff cases, as noted previously, are the enactment of Federal and State anti-injunction laws; more widespread union recognition and employer knowledge that injunctions during labor disputes are not likely to improve future labor-

management relations; the practice in the 1940's of not attempting to operate plants during strikes; the general reaction of labor and public opinion against widespread use of injunctions; and National and State legislation on "unfair labor practices" and the provision of procedures to curb these practices.

(7) Employers usually seek injunctions in order to obtain aid from the courts in fighting unions. However, they sometimes turn to the courts for the purpose of obtaining adequate police protection. Nevertheless, the great majority of injunctions in labor disputes are sought by employers for the first of these two reasons. The recent marked increase in the number of injunction actions seeking damages from unions is connected with the growing tactical use of injunction proceedings by employers to gain an advantageous bargaining position in fighting the unions in strikes and organizational campaigns.

(8) The effect of injunctions on the outcome of strikes and union organizational campaigns appears to be varied. Such procedure is more likely to favor employers in organizational campaigns than in strikes.

(9) The greatest evil in the use of injunctions is stated to be that it creates a feeling among union members, particularly their leaders, that the Government is against them.

(10) Unions have used the injunction against employers and public officials to a greater extent since the Norris-LaGuardia Act became law than formerly. Such action was most frequent in the 1930's and decreased markedly in the 1940's.

(11) Injunctions in intraunion disputes have increased greatly. These have been the outgrowth of disputes over union office, disputes between local unions and internationals, factional disputes within unions, and union disciplinary action against members. The complainants have been individual aggrieved union members (e. g., seeking reinstatement and protection in their jobs), groups of members, and union officials.

(12) In disputes between unions, injunctions are less common but appear to be increasing. Such injunctions have generally resulted from splits within unions and have involved claims to property of a former united union, the right to the use of its name, etc. Jurisdictional disputes resulting in injunctions have been infrequent.

(13) Notwithstanding the increasing use of



injunctions (described in points 10-12 preceding), the feeling against employers and the courts has not lessened in cases of injunctions issued against trade-unions. When unions have themselves sought injunctive relief, their officers have often apologized for such action. Injunctions issued against unions and their officers (in intraunion and interunion cases) have been resented as much as those instituted by employers. Clearly, however, unions do not hesitate to seek injunctions to serve their needs.

(14) In conclusion, the report states that there remains a great deal that is not known about labor injunctions, particularly in recent years. The subject was much studied in the 1920's and the early 1930's, but little has been done in this field since the passage of the Norris-LaGuardia Act. The studies, which make up this report, add considerably to the factual knowledge of injunctions in labor cases in the last 15 years—particularly on procedural matters and the content of injunctions. The most serious remaining gap concerns "Injunctions in action." The conclusions in the Senate document were followed by a series of individual studies which discuss the subject State by State.

<sup>1</sup> These States are Colorado, Idaho, Illinois, Indiana, Louisiana, Maine, Maryland, Massachusetts, Minnesota, New Jersey, New York, Oregon, Pennsylvania, Utah, Washington, Wisconsin, and Wyoming.

<sup>2</sup> The universities commissioned to make the State studies are University of California (Los Angeles); Cornell University, New York State School of Labor and Industrial Relations; University of Wisconsin; and Duke University.

<sup>3</sup> State Court Injunctions. Report of the Subcommittee on Labor-Management Relations of the Committee on Labor and Public Welfare, United States Congress, Senate, Pursuant to S. Res. 140 (81 Cong.). A Resolution to Investigate the Field of Labor-Management Relations. Washington, 1951.

## Annual Conference of Society For Personnel Administration

"OUTLOOK FOR PERSONNEL MANAGEMENT" was the theme of a 2-day annual conference of the Society for Personnel Administration on May 10-11, 1951. The six panel sessions of the conference held in Washington, D. C., were attended by 737 Government and industrial personnel administrators as well as educators and others in the field of personnel management.

Considerable concern was expressed by the speakers on possible manpower shortages arising from the Nation's defense mobilization program. Speaking on the expansion of Government service, Elmer Staats, assistant director of the Bureau of the Budget, stated that a large Federal Government can be expected for many years to come and that Federal administrators should try to keep their individual personnel needs to a minimum. He emphasized the necessity for alertness on the part of all concerned in order to recognize and correct many practices that waste manpower in the Federal service.

Personnel administration is currently facing its greatest challenge, James Mitchell, U. S. Civil Service Commissioner, stated in a talk on "scientific and administrative developments." He said that the serious manpower shortage confronting the country in the next few years will require that personnel administrators make use of all the Nation's scientific and administrative knowledge. This will be required in order to find ways and means of increasing the over-all production of America's manpower and of utilizing the manpower and womanpower of the Nation to the fullest extent.

Seven pressing manpower problems face the Nation in the coming year, according to Robert C. Goodwin, director of the Labor Department's Bureau of Employment Security, who spoke on the general manpower situation. They are:

- (1) Critical shortages in specific professions and skills, resulting in increased turn-over and some pirating and hoarding.
- (2) Growing shortages of heavy labor in certain types of production centers.
- (3) Shortages of semiskilled workers in a growing number of areas.
- (4) Increasing difficulties in staffing and stabilizing employment in certain industries such as farming, underground mining, and lumbering.
- (5) Staffing new industries in sparsely populated areas.
- (6) A growing need for training and intensified recruitment.
- (7) Effecting the best possible distribution of job opportunities through the placement of procurement contracts and facilities in areas where labor supplies are available.

The tremendous pressure on manpower arises, Mr. Goodwin said, because "the Nation is striving to superimpose the defense program upon a high-level civilian goods production, a level which



is to be limited only by demand and by the amount of materials available after defense needs are met." In conclusion, he told the conference that the Labor Department is ready to carry its responsibilities in handling the manpower situation and "to give all possible assistance to local areas and to communities where the manpower problems arise and where they must be solved."

Salesmanship and leadership are the two great needs in the management of Federal Government

personnel, Civil Service Chairman Robert Ramspeck stated in his address on management in the Federal Government. A Federal administrator, he said, must be willing "to stick his neck out and stand up for what he thinks." He called for dynamic leadership from Government department and agency heads and for a planned, organized public relations program designed to inform the general public of the fine work being done by employees in the Federal service.

## Living Costs in Alaska: February 1951 Spot Survey

FAMILY LIVING COSTS, and particularly housing costs, are substantially higher in Anchorage and Fairbanks, Alaska, than in Seattle, Wash., according to a spot survey conducted by the Bureau of Labor Statistics at the request of Government officials. Prices of goods and services, including housing, were 40 percent higher in Anchorage and 47 percent higher in Fairbanks than in Seattle in February 1951. However, with housing excluded, prices were approximately 29 percent and 36 percent higher, respectively, in the Alaskan cities than in Seattle.

In comparison with the Bureau's last similar study made in March 1945, contract rent as well as total housing costs were proportionately much higher in the two Alaskan cities in 1951. On the

other hand, price differentials had narrowed materially by 1951 on food and apparel, but remained comparatively the same for miscellaneous goods and services.

The following tabulation shows the relative differences in the cost of consumption goods, rents, and services between the two Alaskan cities and Seattle in February 1951.

	Indexes (Seattle=100)	
	Anchorage	Fairbanks
Food.....	137	147
Apparel.....	119	125
Housing <sup>1</sup> .....	213	217
Other <sup>2</sup> .....	125	130
All items.....	140	147
All items except housing...	129	136

<sup>1</sup> Rent for 2- and 3-room dwellings meeting certain standards including inside bath, plus fuel, utilities, and housefurnishings.

<sup>2</sup> Personal care, medical care, household operation, transportation, reading, recreation, and tobacco.



# Technical Note

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## Effects of Outlet Type and Location on Price

INTENSIVE STUDIES of retail prices and price relationships made during the past year, constitute a major part of the 3-year program of the revision of the Consumers' Price Index. The accuracy of the CPI depends in large part on how well the samples used in constructing the index reflect price changes for the goods and services bought by moderate-income families. The principal purposes of the current price studies are to determine what samples of (1) cities, (2) stores and sellers of services, and (3) goods and services are needed to measure price changes respectively for all cities; for all stores and sellers of services; and for all goods and services, and (4) what methods of price collection techniques should be adopted for the CPI.

Like any measure based on sample observations, the index is subject to sampling error. The degree of this error decreases as the representativeness of the sample improves. The series of samples—cities, stores, items—on which the Consumers' Price Index is based are sources of statistical error. The extent and relative importance of these errors must be calculated and evaluated through statistical test before decisions can be made on the need and methods for reducing them.

The Bureau's program for special price studies is divided into four major parts:

I. The *Item Survey* is a study of relationships of price and price movements among the goods and services to be represented in the revised CPI. For the past year, prices have been collected for hundreds of items bought by moderate-income families, in order to identify "price families"; i. e., groups of items, with homogenous price-determining characteristics, for which prices fluctuate similarly. Based on the analysis of price move-

ments of items within "price families," the sample of items necessary to represent price changes for all items, within the limits of permissible statistical error, will be chosen.

II. The *Outlet Survey* is a study of relationships of prices and price movements among different types of retailers and among retailers in different sections of the city. The purpose of this study is to learn in what kinds of stores and from what sections of a city prices should be collected in order to get a sufficiently precise measure of price changes representing all kinds of stores in all sections of a city.

III. The *Intercity Survey* is a study of relationships of prices and price movements among different cities. Prices collected in a large number of cities for a selected list of consumers' goods and services will yield estimates of similarities and differences in price movements among cities of different characteristics, such as, size, location, climate, average income, etc.

IV. The *Pricing Techniques Survey* is being made to determine the necessary changes in price-collection procedures in order to improve the accuracy of the index.

In this article, the design and preliminary results of the study of price relationships among stores and sections of city (II above) are described briefly. Additional reports in future issues of the Review will contain the results of the other surveys on cities and items.

The preliminary conclusions in the present study indicate the phases of this survey that will require more detailed analysis. It is apparent that some general rules can be applied to the structural set-up of the final outlet sample. However, more detailed decisions will be made in establishing the sample of outlets for the revision of the CPI. Findings will be subjected to further study and, in conjunction with the other experi-



mental surveys listed, will be used to revise and improve the current sample for the CPI.

### Outlet Survey

An outlet (retail store) sample survey was initiated in Chicago in September 1950 by the Bureau of Labor Statistics. Six field representatives of the Bureau began a systematic canvass of over 300 retail establishments in various sections of the city to obtain prices for 75 items. This pricing was continued for 6 consecutive months and is to be followed by two quarterly pricings.

Retailers were classified according to their store characteristics, i. e., department store or family clothing store, chain or independent, annual sales volume, etc., to verify and evaluate the stratification of the sample.

A similar survey was started in Youngstown, Ohio, in November 1950. However, not enough time has yet elapsed to analyze these data.

### Design of Chicago Sample

A scientific block sample design was drawn up for the Chicago survey. It consisted of a cross-classification of section of city by type of store by type of operation. This sample design was used for each of the 75 different items included in this survey.

The sample of items, outlets, and sections of the city selected for this survey were carefully chosen. The item sample was selected to represent the commodity groups included in the CPI. The selection was:

	Number of items
Total.....	75
Foods.....	17
Rents <sup>1</sup> .....	2
Apparel.....	17
Housefurnishings and services.....	18
Fuel, electricity, and refrigeration.....	2
Miscellaneous.....	19

<sup>1</sup> Items in sample are such home-ownership expenditures as maintenance, repair, etc.

Selection of types of stores was based on those outlets in the current CPI sample plus those not currently included in the index, such as (a) those outlets that are new in the retail distribution field (e. g., unpainted-furniture stores, self-service

clothing stores, etc.) and (b) outlets which have changed their price lines to meet the demands of the moderate-income families.

Approximately 53 different types of stores were chosen for this survey. These were:

Department stores.  
Men's or men's and boys' furnishings.  
Women's or women's and girls' furnishings.  
Children's clothing and furnishings.  
Men's shoe stores.  
Women's shoe stores.  
Family shoe stores.  
Family clothing stores.  
Mail-order houses—Retail  
Dry goods and general merchandise.  
Army-Navy surplus stores.  
Furniture stores.  
Discount houses.  
Rugs and carpet stores.  
Household appliances or radio.  
Unpainted-furniture stores.  
Linoleum (and shade) shops.  
Public utility stores.  
Variety stores.  
Tobacco stores.  
Liquor stores (package).  
Optometrists.  
Credit jewelry stores.  
Movie theaters.  
Doctors' offices, general practitioner.  
Doctors' offices, surgeon.  
Dentists' offices.  
Beauty shops.  
Dry cleaners.  
Laundries.  
Laundrettes (self-service).  
Chain super markets—Combination.  
Chain non-super markets—Combination.  
Independent super markets—Combination.  
Independent non-super markets—Combination.  
Independent non-self-service—Combination.  
Produce stores—Specialty.  
Meat market—Specialty.  
Fish (only) market—Specialty.  
Dairy (only) stores—Specialty.  
Bakery shops.  
Delicatessens.  
Candy shops.  
Ford used car dealers.  
Chevrolet used car dealers.  
Plymouth used car dealers.  
Independent used car dealers.  
Gasoline stations.  
Garages.  
Automobile accessories stores.  
Apothecaries.  
Chain drug stores.  
Independent drug stores.



The sections of the city were originally selected in Washington by persons familiar with Chicago and its trading areas and also from available market research data. This selection was then checked with merchandising authorities in the city.

Classification of the sections of the city was made as follows: *Central*—the one point of largest concentration of retail firms and business houses in the city. In Chicago this involved a section, 12 blocks in radius, with its mid-point at Madison and State Streets. *Neighborhood*—the major community shopping districts located outside of the central section and within the city limits. *Suburbs*—areas located within 15 miles of the city limits.

Many distinctive "types of store operation" were considered for inclusion in this survey. Of these, the commonest are chains and independents. Chain-type stores are national, regional, and local. Some independent types have their own buying staff and others utilize resident buying organizations. Any study of all of these types would have entailed a much larger study than was contemplated. Therefore, only chain and independent types were included.

A minimum of two price quotations per cell (each type of store for each section of city) for each item was considered adequate for statistical analysis of price level and price trend. (In spite of the objective design of this sample, some deviations from this original pattern were encountered due to the limitations of time, money, insufficient price quotations, and a few outlet refusals.)

### Preliminary Findings

Preliminary studies of the data collected in Chicago disclosed that some tentative criteria were needed in order to establish an allowable error when analyzing price levels and trends.<sup>1</sup> It was decided that for this preliminary analysis of price trend, a relative error of 50 percent of price change could be allowed. This decision was based on the statistical theory that one item in the index, with a comparatively small relative importance could tolerate an error of 50 percent without affecting the index. However, for analysis of price level, a maximum error of 5 percent should be allowed.

Some preliminary conclusions obtained from this survey are outlined.

(1) The number of stores required to reduce the error of the estimate to the predetermined percentage varies from item to item. It had been the belief of the Bureau that the findings for one item from a "price family" could be used to estimate the size of sample required for all items within that price family. However, investigation proved that, although the prices of all items within the family have the same price trend, the number of outlets to be priced to give a reliable estimate of that trend varies from item to item.

*Size and type of sample required to reduce the error in estimating price movement and price level to predetermined minimum*

Items priced by specification	Size of sample required: Number of—			Percent of error in—	
	Stores	Types of stores	Sections	Price level for 1 month	Price movement over 6 months
Men's street shoes: Oxford, medium grade, calf upper.....	4	2	1	3.2	47.9
Men's work shoes: High, leather outsole.....	8	4	4	.3	46.7
Women's street shoes: Oxford, arch type; calf or kid, medium grade.....	4	2	1	2.4	50.6
Boys' street shoes: Oxford, 2½ to 6; elk or other, (exclude calf of kip).....	6	1	1	1.8	46.6
Men's wool suits: Hard finished worsted.....	2	1	2	1.8	( <sup>1</sup> )
Men's cotton work trousers: Whipcord, sanforized.....	2	1	1	1.8	( <sup>1</sup> )
Felt-base rug: 9 x 12, heavy.....	2	1	1	1.7	( <sup>1</sup> )
Unpainted chest of drawers: 4-drawer box type.....	8	1	2	1.6	45.2
Washing machine: Electric non-automatic, wringer type.....	7	1	6	( <sup>1</sup> )	49.7
Hot water heater: Replacement, gas, installed.....	4	1	1	403.2	44.9
Tires: 600 x 16, 4 ply, 100 level.....	1	1	1	.01	34.7

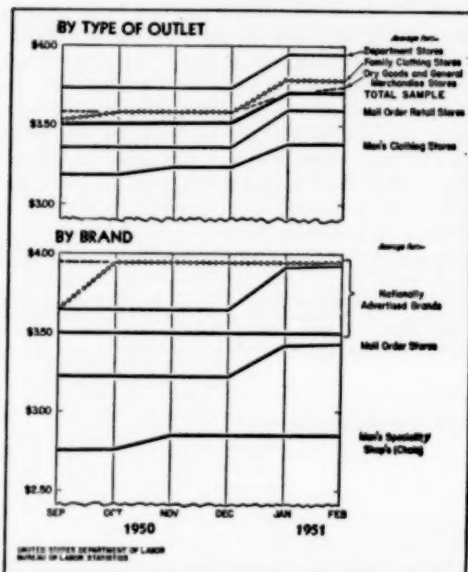
<sup>1</sup> Analysis not complete.

(2) The variance in the prices for some items is due to brand differences rather than to the type of store and its location. Most of these items showed that variation in price was due to the individual stores themselves rather than to the type of outlet or its location. Further scrutiny disclosed that this difference by store was directly attributable to the brand priced in that outlet, most of which were nationally advertised.

(3) For some items the variance is due to the choice of store rather than to the type of store or its location. This seems to indicate that the individual store pricing policies or the variances within the item specification are responsible for these differences.



### Average Prices for Nationally Advertised Men's Dress Shirts



(4) Distribution patterns vary from item to item within a "price family." The quality of an item and its related price level is a factor in determining the type of outlet to price. Not all items of men's clothing can be found in the same type of outlet; department stores and mail-order retail stores are exceptions. Men's work clothing is not found in all types of outlets handling men's clothing, particularly in men's specialty shops.

(5) Items used by some outlets as "leader" items tend to show large variance. In many cases this is due to a lag in price changes, probably resulting from some outlets' disregard of the normal price determining factors.

(6) For some items, price changes are infrequent. Items in this category are most services and a few drug items. Prices charged for movie admissions, medical and dental care, and beauty-shop services showed no change during the 6 months of pricing. Most of these items had price level variance which could not be directly attributed to type of outlet or its location.

The following examples illustrate the preliminary conclusions discussed above.

(1) *Required sample of stores varies by item within "price family."* Shoes, which were classed as a "price family," are one basis for this conclusion. To obtain a reliable outlet sample, for men's and women's shoes a smaller outlet sample was required than for men's work shoes and boys' street shoes. Also, it was found that men's work shoes should be priced in all sections of a city, whereas all other shoes can be priced in a single section of the city.

(2) *Items showing variations due to brand differences.* Men's dress shirts, nationally advertised, are an example for establishing this conclusion. A study of the average prices of men's dress shirts by type of outlet shows that the price movement in all outlets is the same; the sole difference is in the price level (see chart). When the prices for the stores' own brands were eliminated the difference in level was very slight. In plotting prices by brand, the variation in price shown was due chiefly to brand rather than to type of outlet.

(3) *Items showing variance due to factors other than type of store.* A water heater, installed, best illustrates this conclusion. The type and location of the outlet handling water heaters is not significant. The variation in the trend of prices could be controlled solely by the number of outlets priced. Thus, to reduce the relative error to 50 percent, four outlets are sufficient. City health laws can affect the marketing of this item. If city regulations require a licensed plumber to install heaters, licensed plumbers represent the largest suppliers of water heaters. Such regulations may indirectly affect price, but this could not be definitely determined from the present study.

(4) *Variances due to differences in distribution methods of items within a "price family."* Four items—wool suits, work trousers, dress shirts, and undershirts (medium quality)—from the men's clothing "price family" best explain this conclusion. Although mail-order retail stores are among the largest retailers of work trousers and medium quality undershirts, they do not stock the wool suit (meeting BLS specification) nor the nationally advertised dress shirt. One of the important outlets for men's suits and dress shirts (national



brand)—the men's specialty shop—did not carry work clothing and frequently carried only the better quality undershirts. Conversely, some outlets selling work clothing in volume did not carry men's suits and coats. The amount of variation in both price level and trend differed considerably from item to item within the men's clothing group.

The relative error in the price level of men's suits was small, but in trend it was large. The absolute error in price change from September 1950 to February 1951, based on a suit averaging \$64, was approximately \$5. To determine the nature of the price movement of this item, the average monthly price by type of outlet was plotted against the average monthly price for all outlets combined. The price in no one type of outlet followed the trend for all outlets, largely because of the differences in type of store and type of operation. This can be explained by the fact that some stores offered this suit at reduced prices in their January sales.

The price variances in both level and trend for men's work trousers were relatively small. Few outlets reported price changes for this item over the 6-month period. It was found that pricing in one store would reduce the relative error of an average price to 3 percent. To determine which types of outlets would best represent the trend and level of prices for this item, the average monthly price for each type of outlet was plotted against the average monthly price for all outlets. Preliminary results

indicate that mail-order retail stores and Army-and-Navy surplus stores would be the best selections.

(5) *Variances due to "Price Leader" items.* The felt base rug is the best example of this type of item. Many stores carry this rug as a convenience to their regular customers or as a promotional item to attract trade. When this rug is carried as a promotional item, the mark-up is kept at a minimum and sometimes sales are made at a loss. Preliminary results indicate that price lag by outlet accounts for most of the variance. In order to reduce the relative error in price trend, for a short period, a large sample of outlets by types would be required in all sections of the city. As the period is lengthened, the number of stores required to reduce the error in trend decreases, thus eliminating the short-term lags.

(6) *Items showing no price movement during the 6 months of pricing.* Most of the services and a few drug items were in this category. This indicates that for these items pricing could be done quarterly or even semi-annually with little effect on the index.

—RUTH ROSAKRANS  
Division of Prices and Cost of Living

<sup>1</sup> All results were analyzed by the variance analysis method. Price movements were calculated by using the accumulated percent of price change for three overlapping periods (September 1950 through December 1950; October 1950 through January 1951; and November 1950 through February 1951). Prices for the month of September 1950 were used to study the variation in the level of prices. These were rechecked by using February 1951 prices, if the trend variances were large.



# Recent Decisions of Interest to Labor<sup>1</sup>

## Wages and Hours<sup>2</sup>

**Work on Yacht Covered by FLSA.** A United States Court of Appeals held<sup>3</sup> that an employee who made repairs on a private yacht while it was moored in port preparatory to its sale and transportation abroad was covered by provisions of the Fair Labor Standards Act of 1938, as amended. Therefore, he was entitled to compensation of time and a half for overtime work, as required by section 7 (a) of the act.

The ship in question was originally built and used as a private yacht. During World War II, it was taken over by the Canadian Government for training purposes. After the war it was sold to a private individual who traveled in it to Miami. There he had extensive repairs and refurbishing done so that it could be sold at a profit. (He had a foreign interest in mind as purchaser.) An employee hired by a shipping corporation to perform this work later sued the corporation for overtime compensation under the FLSA.

The trial court dismissed the employee's complaint, stating that transportation of the vessel was not, under the circumstances, "commerce" as defined in the act, because its sale was a mere incident and not the carrying on of a trade or business. The trial court concluded, therefore, that the employee was not "engaged in commerce or in the production of goods for commerce" so as to come within protection of the act.

Citing the Powell case,<sup>4</sup> the appellate court said that the United States Supreme Court in that decision had rejected the test used by the lower court. "Coverage of the act," the appellate court stated, "is not limited to employees engaged in producing goods solely for competitive markets, but extends also to production of goods for interstate transportation or delivery, even though such goods are transported for use or consumption by the owner and not for sale or exchange." "Moreover," the appellate court pointed out, "it is not the nature of the employer's business, but the character of the employee's work that determines the applicability of the act."

In reversing the trial court, it pointed out that section 3 (i) of the act expressly included in its definition of "goods" the word "ship" and that the repair of ships, as well as their original construction, "is the 'production of goods for commerce' within the meaning of the act." When the yacht moved from Canada to Miami, it was clearly an instrumentality of commerce, the court stated, even though such transportation was not in connection with a trade or business. Although the ship lay in port

for over a year, it did not lose its status as an instrumentality of commerce.

Therefore, the court concluded, the employee was engaged in production of goods for commerce and was entitled to his overtime claim.

**Construction-Material Checker Covered by FLSA.** A New York City Court held<sup>5</sup> that an employee checking incoming supplies for a construction company, and working away from the construction site, was engaged in interstate commerce within the meaning of the act and therefore could recover overtime compensation.

The construction company was authorized to build various army installations in Bermuda. Material shipped from the United States to the port of St. George was checked off the ships by an employee, who later checked it again on the docks. Three-fourths of his work was done away from the construction sites and at the port of St. George. He worked 1,352 hours in excess of 40 hours a week and claimed \$1,279.08 as unpaid overtime compensation. He also claimed an equal amount as liquidated damages under section 16 (b) of the FLSA. The company contended that the employee was not subject to the act because he was not engaged in commerce. It also defended on the ground that the Portal-to-Portal Act relieved it of liability.

It was clear, the court found that "the work [of the employee] . . . in connection with these materials was so closely related to such movement in interstate commerce as to be practically a part of it" and that therefore, the employee was engaged in commerce within the meaning of the FLSA.

The company's second defense—that its omission to pay overtime was "in good faith in conformity with and in reliance on" an administrative ruling by an agency of the United States, and that the employee's action was thus barred under section 9 of the Portal-to-Portal Act—was denied. The court said that such a defense raised a question as to whether any administrative agency had granted the company the right to refuse to pay overtime. A circular letter from the United States Corps of Engineers to district engineers, concerning payroll audit, and a letter from an army official denying the company's request for permission to increase the employee's salary, were not evidence that an agency of the United States had granted the company exemption from certain overtime provisions of the FLSA.

The court concluded that the employee was entitled to recover his unpaid compensation. But, it found, the company had acted in good faith, if in ignorance, in failing to pay the employee. Therefore, exercising its discretion under section 11 of the Portal Act, the court relieved the company of its obligation to pay an additional penalty as liquidated damages.

## Labor Relations

**Lock-out By Members of Employers' Association Held Illegal.** With Board member Murdock not participating in the decision, the NLRB ruled<sup>6</sup> that members of an employers' association violated the National Labor Rela-



tions (Wagner) Act as amended by the Labor Management Relations (Taft-Hartley) Act. The employers concerned temporarily laid their employees off when the employees' union called a strike against one member of the association. In a prior decision<sup>7</sup> (Mr. Murdock dissenting), the NLRB ruled that association members violated the LMRA when they discharged their workers because the employees' union had called a strike against an association member.

The present decision continues the rationale of the former decision, and prevents members of employer associations from locking out their employees in an attempt to aid another association member who is threatened with a strike. The union in this case had bargained since 1937 with an employer association of furniture companies. On June 3, 1949, an impasse occurred over a new contract and the union told the association that it would call a strike against one of the member companies, which paid lower wages than the others. Soon after, the union placed pickets around two stores and the warehouse of that company. On June 4, 11 of the 19 employer members notified their employees by pamphlets and letters that their stores would be closed until further notice because of the union's activities. The 11 companies reopened their stores on July 9, 1950, after the strike against the one company had been settled and an association-wide contract had been signed.

In its complaint to the Board, the union contended that the 11 companies' lock-out was discriminatory and in violation of section 8 (a) (1) and (a) (3) of the LMRA. The trial examiner agreed with the union's complaint, basing his decision on the earlier case mentioned above.

In sustaining the trial examiner, the Board reasoned that no matter how the strike was considered, it was clear that the 11 companies had laid off their employees because of that activity. The companies, the Board stated, thus served notice on all members of the bargaining unit "that resort to lawful protected concerted activity by the employees of any employer-member of the bargaining unit would subject other employee-members of the bargaining unit to the reprisal of a temporary loss of employment." This action, the Board declared, was contrary to the rights guaranteed by section 7, and was in violation of section 8 (a) (1) and (a) (3) of the act.

**Employees Not Protected When Honoring Picket Line.** Decisions limiting the "concerted activities of employees for the purpose of . . . mutual aid . . .," which are protected under section 7 of the Labor Management Relations Act, are always of keen interest. In the past the Supreme Court has held that (1) a sit-down strike<sup>8</sup> dissolves the protection of the act, and (2) a breach of contract<sup>9</sup> justifies discharge by an employer. A United States court of appeals has held<sup>10</sup> that participants in a wildcat strike forfeit the law's protection. The NLRB has ruled<sup>11</sup> that a slow-down is not a form of protected activity.

Recently the United States Court of Appeals at Chicago added another activity to those that are given no protection—refusal to cross the picket lines of another union.<sup>12</sup>

The facts in the case arose under the Wagner Act and involved eight supervisors who were represented by a

union, in the city of Chicago. Another union, representing employees of the same company situated in plants outside the city, was engaged in an economic strike. The latter union placed picket lines around the plant where its members were employed and also around the city plant where the eight supervisors were working. The eight supervisors failed to show up for work, stating they would not cross the picket line. As a result of this action, the company demoted them to operating jobs.

The NLRB upheld the right of the eight supervisors to refuse to cross the picket line, stating: "The general concern of employees with mutual aid and support in their efforts to improve their working conditions, even when not directed to the immediate achievement of economic benefits for themselves, has long been regarded as . . . a protected interest."

The court, however, held that employees, by honoring a picket line established by a union other than their own, are not engaged in either a strike or an activity for their "mutual aid and protection"; and that therefore, an employer may demote or discharge them without violating section 8 (1) and (3) of the Wagner Act [as amended by the LMRA].

The court pointed out that each of the eight employees acted individually and for the most part refused to cross the picket line "on principle." In short, there was no evidence of "concerted activity" on their part. But, the court said, even if it is assumed that the employees were engaged in "concerted activities," those activities were not for their "mutual aid or protection." They had no right to act individually on their own behalf; that was a job for their own union under its contract with the company. Therefore, the court reasoned, these employees had no right to act on behalf of another bargaining unit represented by another bargaining agent.

The court stated it was "not aware" of any other decision that passed on the precise question involved, but that the case noted above concerning a wildcat strike<sup>13</sup> was most nearly in point.

**New Representation Election Not Made Possible by Reopening of Contract.** Citing the "need for increased stability in labor-management relations," the NLRB (four members participating) created a new policy. It ruled<sup>14</sup> that an incumbent union and the company may voluntarily modify their collective-bargaining agreement without thereby opening the way for a rival union to obtain a representation election before the contract expires. Former decisions contrary to the above were expressly overruled, said the Board.

A contract between a union and a Baltimore company with 2,700 employees was to extend to July 12, 1952, but could be opened up once by each party on or after May 13, 1951, for a reconsideration of wage rates. On September 19 and 25, 1950, a few months after the contract became effective, the parties opened it because of (1) reemployment rights of men on military leave of absence, and (2) increased cost of living. On December 1, 1950, the parties concluded their supplemental agreements, covering (1) wage increases, (2) reemployment rights, and (3) no further reopening of the contract. The union mem-



bers ratified this agreement on December 3, 1950. These supplemental agreements, of course, were dated before May 13, 1951, and therefore were premature according to the contract's reopening provision.

A petition for a representation election was mailed to the NLRB by a rival union on December 2, 1950, and was docketed by the Board on December 4, 1950.

The rival union contended that the contract could not be held a bar to a representation election, because it had been reopened before May 13, 1951 and because the modifications agreed upon exceeded those provided for in the contract.

The Board however, ruled that the contract was a bar to the representation proceedings. It did not base its decision on the fact that the petition filed by the rival union on December 4, 1950, was untimely, but rather, on the need for increased stability in industrial relations. The Board said: "Substantial stability in bargaining relation is . . . encouraged, by barring third parties from taking untimely advantage of a change thought desirable by those already bound to one another."

Under the new policy, the Board reasoned, the freedom of employees to choose their own representatives would not be jeopardized, since all employees have become increasingly aware of "their collective bargaining rights under the act and have acquired a better knowledge of the unions available and chosen to represent them." That being true, a decision encouraging stability of bargaining relations would not prejudice any party concerned.

**Anti-Communist Motive No Defense for Unfair Labor Practices.** A belief that a rival union is Communist-dominated is insufficient reason for a company to offer active assistance to another union, the Board ruled,<sup>14</sup> even though the company may be "motivated in part by patriotic objectives."

The United Electrical Workers was certified in 1943 as bargaining agent of the employees in the Stewart-Warner Corp. June 1, 1949, was the date specified in the collective-bargaining agreement for a reconsideration of wage rates. Negotiations on wages began in April, but since no agreement was in sight, the company terminated the agreement as under the contract it was allowed to do. The International Brotherhood of Electrical Workers then requested recognition.

A representation election was held on July 7, 1949, at the employer's request. The IBEW, in the election, received 1,041 votes; 886 votes were cast for "no union," and 193 votes were challenged. The officials of the UE (whose contract had expired a month previously) had not signed the non-Communist affidavits required by the act, hence the UE could not appear on the ballot.

After the election, three employees including the president of the local UE union, filed unfair-labor-practice charges against the employer, and the Board withheld certification of the IBEW. About January 31, 1950, the company recognized the IBEW, before it had been certified. The company entered into an agreement with the IBEW on March 16, 1950.

In its argument, the company stated that its desire to

rid the plant of communism "assertedly exemplified by the UE local," exonerated it from any violation of the act. The Board decided, however, that even though the company may have had good, patriotic reasons for its actions, it nevertheless violated section 8 (a) (2) of the act.

The company, the Board stated, not only aided the IBEW by signing a contract with it before it was certified, but it also engaged in the following activities: ". . . a threat of disciplinary action to an employee to induce her to sign the IBEW petition, a threat to another employee of loss of job security if she did not vote for the IBEW, the denial to UE adherents of the right previously granted the IBEW to circulate petitions, the posting of a notice of an IBEW meeting, and the recall of a laid-off employee for the purpose of assisting the IBEW."

**Union Letters to Employer's Customers, Protected Activity.** With one member dissenting, the Board ruled<sup>15</sup> that a letter requesting an employer's customers to bring pressure on the employer in aid of a union's drive for recognition was a protected concerted activity under the LMRA.

A union asked on May 13, 1949, that it be recognized by an electronics equipment company, but the company refused. A rival union made the same request, and in that instance the company executed a consent-election agreement. In the same month, the company discharged a number of employees who were members of the union which had first requested recognition. On account of this action, a shop steward of the union sent letters to the company's customers, requesting that they refrain from dealing with the company in the event the union began picketing it. The employee who had mailed the letters under the union's letterhead was discharged by the company on July 13.

Although the trial examiner found that section 7 of the LMRA did not protect the preparation or circulation of the letters, the Board disagreed. The majority found that the letters had two main objectives: (1) securing reinstatement of the discharged employees, and (2) securing a contract of some sort for the union.

It was not clear from the letters whether the contract sought was for exclusive recognition, the Board stated, but, even if that were assumed, the activity would be protected under the act. In the Board's opinion, the letters did not go beyond the realm of protected concerted activity. It stated: "A contrary conclusion would necessarily result in denying the right to publicize the facts in a labor dispute at any time when those facts might add up to a possible conclusion that an unfair labor practice had been committed."

**Discharge for Failure To Pay Union Dues on Time Legal Under Union Shop.** All employees working in a union shop must pay their dues on time, if union rules so require, or risk losing their union membership and their jobs, the NLRB ruled.<sup>16</sup> The Board, with one member dissenting, further ruled that tender of the delinquent dues before the employee was actually expelled did not protect him from discharge under the LMRA.

A union-shop contract, negotiated between the company and the union on July 2, 1948, provided that all employees must, within 30 days "as a condition of employment, be-



come and remain members of the union." The union's constitution required members to pay their dues before the last day of each month.

Caviechia, plant employee, joined the union on July 30, the last working day of the month. He paid his dues on August 2. The union informed him that the payment would be applied for the month of July, to which he made no protest. Caviechia did not pay his August dues, even though the union chief steward offered to lend him \$1.50 for the dues payment.

On September 1, the union wrote to the company asking that Caviechia be discharged. When Caviechia obtained a copy of the letter he complained to the union that he had been granted an extension. A union official requested the company to delay the discharge and arranged a hearing on the matter before the union's executive committee on September 3. On the day of the hearing, the employee offered to pay his back dues, but the union officials refused to accept them. After the hearing, the executive committee refused to accept the employee's explanation that the \$1.50 he paid should be applied for August instead of July, and voted unanimously that the letter to the company requesting his discharge would stand. When the employer heard of this decision, Caviechia was discharged.

Although the employee could have waited a few days and joined the union in August, the Board noted that he did join in July; therefore, he was liable for July dues. Also, since he apparently agreed to the union's acceptance of his payment of August 2 as dues for the month of July, there was no doubt, the Board said, that the August dues were still due and unpaid.

The NLRB rejected the argument that Caviechia should not have been discharged for nonpayment when his tender of delinquent dues on September 3 had been refused. The Board's rejection of that argument was based on section 8 (a) (3) (B) and 8 (b) (2) of the LMRA, which provides that no employer or union shall discriminate against an employee under a union-shop agreement unless the employee has failed to tender the "periodic dues . . . uniformly required as a condition of acquiring or retaining membership." The Board stated that, according to the act, dues not only had to be paid, but must be paid within the time uniformly required by the union as a condition of retaining membership. Accordingly, the Board found that Caviechia had been properly discharged.

Board Member Murdock dissented, stating that the majority decision was, in his opinion, "not in accord with either the facts or the law of the case." He questioned the

assumption that the employee, by joining the union on the thirtieth of July, became responsible for the entire month's dues. He also questioned whether the employee had acquiesced in the union's action and therefore could not now have his complaint heard, since he could not have foreseen the result of the "misapplied allocation" of his dues.

Board Member Murdock also thought it to be an anomaly that a union which could not compel an employee to join the union within 30 days after the contract's effective date, should be permitted to bring about his discharge because he did not pay his dues for the "free" period.

## Unemployment Compensation

**Availability During Short Lay-Off.** The Pennsylvania Superior Court held<sup>17</sup> that a claimant who expected to return to her former employer within a week or two was not eligible for unemployment benefits, because not available for work. Conditions specified by a claimant on willingness to work make the individual unavailable unless there is a reasonable opportunity for securing work under those conditions.

**Availability—Seeking Work.** The Michigan Circuit Court held<sup>18</sup> ineligible for unemployment benefits a worker who had returned to his home town in another State while awaiting a recall by his former employer. When the statute requires that a claimant be "seeking work", mere registration at an employment office is not enough. The claimant "must make an honest effort, consistent with the surrounding facts and circumstances, to find work. In other words, he must be genuinely in the labor market."

**Vacation Period.** The Minnesota Supreme Court held<sup>19</sup> that a claimant who was unemployed, without pay, during a period when the plant was closed for vacation was not entitled to benefits. Claimant could not be considered involuntarily unemployed, since he was a member of the union which had contracted with the employer to permit a vacation shut-down for all employees, whether or not entitled to vacation pay.

The Indiana Appellate Court, under much the same circumstances, held,<sup>20</sup> that a claimant was entitled to benefits. The distinguishing factor was that the union contract provided that a shut-down period could be designated as a vacation period only for employees eligible for vacations. In the view of a concurring judge, consent to a vacation without pay should never be implied from a union contract.

<sup>1</sup> Prepared in the U. S. Department of Labor, Office of the Solicitor.

The cases covered in this article represent a selection of the significant decisions believed to be of special interest. No attempt has been made to reflect all recent judicial and administrative developments in the field of labor law or to indicate the effect of particular decisions in jurisdictions in which contrary results may be reached, based upon local statutory provisions, the existence of local precedents, or a different approach by the courts to the issue presented.

<sup>2</sup> This section is intended merely as a digest of some recent decisions involving the Fair Labor Standards Act and the Portal-to-Portal Act. It is not to be construed and may not be relied upon as interpretation of these acts by the Administrator of the Wage and Hour Division or any agency of the Department of Labor.

<sup>3</sup> *Bodden v. McCormick Shipping Corp.* (C. A. 5, May 8, 1951).

<sup>4</sup> *Powell v. U. S. Cartridge Co.*, 339 U. S. 497.

<sup>5</sup> *Hardiman v. Johnson Corp.* (N. Y. City Ct., May 4, 1951).

<sup>6</sup> *Davis Furniture Co.* (94 NLRB No. 52, May 3, 1951).

<sup>7</sup> *Morand Bros. Beverage Co.* (91 NLRB No. 38, Sept. 25, 1950).

<sup>8</sup> *NLRB v. Pansteel Corp.*, 306 U. S. 240.

<sup>9</sup> *NLRB v. Sands Mfg. Co.*, 306 U. S. 332.

<sup>10</sup> *NLRB v. Draper Corp.* (C. A. 4, Oct. 6, 1944).

<sup>11</sup> *In re Elk Lumber Co.* (91 NLRB No. 60, Sept. 20, 1950).

<sup>12</sup> *NLRB v. Illinois Telephone Co.* (C. A. 7, May 21, 1951).

<sup>13</sup> *Western Electric Co.* (94 NLRB No. 9, Apr. 27, 1951).

<sup>14</sup> *Stewart-Warner Corp.* (94 NLRB No. 85, May 17, 1951).

<sup>15</sup> *Electronics Equipment Co.* (94 NLRB No. 19, Apr. 30, 1951).

<sup>16</sup> *Christolm-Ryder Co.* (94 NLRB No. 76, May 16, 1951).

<sup>17</sup> *Pinto v. Board of Review* (Pa. Super. Ct., Apr. 10, 1951).

<sup>18</sup> *Honeycutt v. Appeal Board* (Mich. Cir. Apr. 10, 1951).

<sup>19</sup> *Jackson v. Minneapolis-Honeywell Regulator Co.*, (Minn. Sup. Apr. 30, 1951).

<sup>20</sup> *American Bridge Co. v. Review Board* (Ind. App. Apr. 16, 1951).



# Chronology of Recent Labor Events

## May 14, 1951

THE SUPREME COURT OF THE UNITED STATES, in the case of *National Labor Relations Board v. Highland Park Manufacturing Co.*, ruled that the CIO is a "national" labor organization within the meaning of the Labor-Management Relations Act (see Chron. item for Oct. 7, 1947, MLR Jan. 1948), and, as such, its officers are required to file non-Communist affidavits. (Source: Labor Relations Reporter, vol. 28, No. 6, May 21, 1951, LRRM p. 2033.)

## May 15

THE WAGE STABILIZATION BOARD amended General Wage Regulation 9 (see Chron. item for Feb. 15, 1951, MLR Apr. 1951), with respect to wage schedules for new plants, to allow modifications, on application, in cases in which the rules are unworkable or would cause undue hardship. In addition, the staff of the Board was instructed—in processing pending cases of Federal construction, covered by the Davis-Bacon Act—to give due consideration to the most recent applicable wage-rate determination based upon rates in effect prior to January 25, 1951. (Source: Federal Register, vol. 16, No. 98, May 19, 1951, p. 4714, and WSB release, May 16, 1951.)

On May 17, the Board unanimously adopted GWR 11, permitting farm wage rates below 95 cents an hour to be increased up to that level without reference to the 10-percent formula. (Source: Federal Register, vol. 16, No. 102, May 25, 1951, p. 4938.)

On May 23, the Board amended GWR 10 (see Chron. item for Feb. 15, 1951, MLR Apr. 1951) modifying the definition of "tandem relationship" and eliminating the cut-off date (Feb. 9, 1951) for wage increases in tandem relationships. (Source: Federal Register, vol. 16, No. 104, May 29, 1951, p. 5015.)

On May 31, the Board adopted GWR 12, establishing a 12-member tripartite Construction Industry Stabilization Commission, with authority to administer wage stabilization in the building and construction industry. (Source: WSB release, June 1, 1951; for discussion, see p. 58 of this issue.)

## May 16

THE NLRB, in the case of *Chisholm-Ryder Co. Inc. and John Caricchia*; *United Gas, Coke and Chemical Workers of America, Local 235 (CIO)* and *John Caricchia*, ruled that discharge of employee under valid union-shop contract for failure to pay union dues on time is not discriminatory. (Source: Labor Relations Reporter, vol. 28, No. 6, May 21, 1951, LRRM p. 1062; for discussion, see p. 70 of this issue.)

THE NLRB, in the case of *Kellogg Co. and Lodge No. 790, International Association of Machinists (AFL)*; *United Brotherhood of Carpenters and Joiners of America, Local 943 (AFL)* and *Same*, ruled that the union did not attempt to cause the employer to give job preferences to its members by merely submitting to employers trade rules which required such preferences. (Source: Labor Relations Reporter, vol. 28, No. 8, May 28, 1951, LRRM p. 1078.)

THE OFFICE OF PRICE STABILIZATION issued Ceiling Price Regulation 37, effective May 28, extended to July 2, fixing ceiling prices for sales of cotton yarn or fabric by manufacturers. (Source: Federal Register, vol. 16, No. 97, May 18, 1951, p. 4644.)

On the same day, the OPS issued CPR 38, establishing specific dollars-and-cents ceilings for pulpwood produced in Northeastern States. (Source: Federal Register, vol. 16, No. 96, May 17, 1951, p. 4612.)

On May 24, the OPS issued CPR's 39 and 40. CPR 39, effective May 29, establishes ceiling prices for fish scrap, fish meal, fish solubles, and certain specialty fish feed products, at the processor, importer, and distributor levels. CPR 40 fixes dollars-and-cents ceiling prices for purchases of burlap by importers, and establishes a method for determining ceiling prices for sales of burlap after importation. (Source: Federal Registers, vol. 16, No. 103, May 26, 1951, p. 4967, and vol. 16, No. 102, May 25, 1951, p. 4936.)

On May 29, the OPS issued CPR 41 establishing ceiling prices for sales of shoes by manufacturers. (Source: Federal Register, vol. 16, No. 105, May 30, 1951, p. 5044.)

On May 31, the OPS issued CPR 42, establishing ceilings for sales by canners of the spring pack of canned asparagus, green beans, spinach, and vegetable greens other than spinach. (Source: Federal Register, vol. 16, No. 106, June 1, 1951, p. 5112; for discussion of the above, see p. 59 of this issue.)

On June 1, the OPS issued CPR 43, effective June 6, establishing dollars-and-cents ceiling prices for various grades of zinc scrap. (Source: Federal Register, vol. 16, No. 107, June 2, 1951, p. 5168.)

On June 4, OPS issued CPR 44, fixing ceiling prices for the services rendered by contractors in the needlework industry in Puerto Rico. (Source: Federal Register, vol. 16, No. 108, June 5, 1951, p. 5257.)

On June 9, OPS issued CPR 45, effective August 15, establishing ceiling prices for sales by manufacturers of



apparel, apparel furnishings, and apparel accessories. (Source: Federal Register, vol. 16, No. 117, June 16, 1951, p. 5753.)

### May 17

THE United Electrical Radio & Machine Workers of America (Ind.) and General Electric Co. agreed to a wage increase of 9 cents an hour, corresponding to a similar increase granted the International Union of Electrical, Radio, and Machine Workers (CIO) under escalator clause provisions. (Source: New York Times, May 18, 1951.)

THE NLRB, in the case of *Stewart-Warner Corp., Chicago, Ill.*, and *International Union of Electrical Workers (CIO)*, ruled that an employer's belief that a union is Communist-led did not in itself, under existing law, justify the employer in actively assisting another union to organize employees in its plant. (Source: NLRB release R-372, May 21, 1951; for discussion, see p. 70 of this issue.)

### May 18

THE WSB, in an 8 to 4 vote (industry members dissenting) approved a 9-cent across-the-board hourly increase for employees of the four major meat-packing companies, thereby averting a strike scheduled for May 20 (see Chron. item for May 7, 1951, MLR June 1951). (Source: WSB release, May 18, 1951; for discussion, see p. 74 of this issue.)

### May 22

THE ACTING ADMINISTRATOR of the U. S. Department of Labor's Wage and Hour Division announced a minimum hourly rate of 40 cents (formerly 25 cents) for employees in the semi-vitreous and vitreous-china food utensils division of the clay and clay products industry in Puerto Rico, effective June 25, under the Fair Labor Standards Act. (Source: Federal Register, vol. 16, No. 104, May 29, 1951, p. 5008.)

On June 8, the Administrator announced a minimum wage rate of 36 cents an hour (formerly 30 cents) for employees in the cigar and cigarette industry in Puerto Rico, effective July 16, under the Fair Labor Standards Act. (Source: Federal Register, vol. 16, No. 116, June 15, 1951, p. 5700.)

### May 25

THE over 2-year wage and rules dispute of the Brotherhood of Railroad Trainmen (Ind.) and the operators ended with an agreement, based on the memorandum of agreement signed at the White House on December 21, 1950 (see Chron. item for Dec. 13, 1950, MLR February 1951), providing for hourly increases of 33 cents for yardmen and 18.5 cents for roadmen. (Source: Brotherhood of Railroad Trainmen release, May 25, 1951; for discussion, see p. 74 of this issue.)

### June 1

THE International Union of Electrical, Radio, and Machine Workers (CIO) and Westinghouse Electric Corp. agreed to a 1-year extension of contract, a 9-cents hourly wage increase (retroactive to April 16), and a modified union shop. (Source: New York Times, June 2, 1951.)

### June 4

THE SUPREME COURT OF THE UNITED STATES, in four related cases, ruled that the LMRA applied to the construction industry, and approved many rulings of the NLRB regarding secondary boycotts. (Source: Labor Relations Reporter, vol. 28, No. 12, June 11, 1951, 28 Anal., p. 25.)

### June 6

THE thirty-fourth general conference of the International Labor Organization opened at Geneva, Switzerland. (Source: ILO News Service, vol. IV, No. 3, June 1951.)

THE WSB, in the form of a resolution, approved the 4-cent hourly "productivity increase" covered by the General Motors Corp.—International Union, United Automobile, Aircraft and Agricultural Implement Workers of America (UAW-CIO) agreement. In addition, the Board issued instructions for processing of similar cases, now pending, if the employer agrees that the increase will not be used as the basis of a price increase request. (Source: WSB release, June 7, 1951; for discussion, see p. 76 of this issue.)

### June 7

THE PRESIDENT, by Executive Order No. 10251, suspended for the duration of the national emergency, existing law prohibiting more than 8 hours work in any 1 day by laborers and mechanics employed by the Government of the United States, as pertains to all work performed by laborers and mechanics employed by the Department of Defense on any public work which is essential to the national defense. (Source: Federal Register, vol. 16, No. 112, June 9, 1951, p. 5465.)

THE WSB approved an approximate 15-percent increase covering shipyard workers (see Chron. item for May 3, 1951, MLR June 1951) on the East, West, and Gulf Coasts, and Great Lakes areas. (Source: WSB release, June 7, 1951; for discussion, see p. 75 of this issue.)

### June 12

APPROXIMATELY 65,000 workers of the International Ladies' Garment Workers' Union (AFL) in the New York, New Jersey, Pennsylvania, and Connecticut areas went out on strike—the first in 25 years. (Source: New York Times, June 12, 1951.)



# Developments in Industrial Relations<sup>1</sup>

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SETTLEMENT of the 26-month-old dispute between the Brotherhood of Railroad Trainmen (Ind.) and the Nation's railroads, and the Wage Stabilization Board's approval of a 9-cent hourly wage increase for about 200,000 meat-packing workers were among the industrial-relations highlights of May and early June. Another significant development was the Board's approval of annual improvement wage increases provided in the General Motors Corp. agreement and similar contracts. Wage increases were also negotiated for approximately 50,000 General Electric Co. employees and about the same number of Westinghouse Electric Corp. employees, and 12,000 building-service workers employed by New York City apartment-house owners.

Preliminary estimates indicated that strike idleness in May was less than in the preceding month. The April stoppage involving 40,000 textile workers employed in Southern cotton and rayon mills was virtually terminated by mid-May. Other strikes involving 5,000 or more workers included a 3-day strike by dairy workers in Chicago, Ill., and the continuing stoppage of Detroit transit employees which began in late April.

## Railroads

The Brotherhood of Railroad Trainmen and the Nation's major railroads settled a 26-month dispute on May 25 with agreement on a new contract covering 150,000 workers. Under its terms, which are subject to the approval of the reconstituted Wage Stabilization Board, yard workers' wages are increased 33 cents an hour and road-service employees' wages, 18½ cents. Included in these increases are the hourly raises ordered by the Army

on February 8 of 12½ cents for yard workers and 5 cents for road-service employees, retroactive to October 1, 1950.<sup>2</sup>

The yardmen's hourly wage increase was payable in the following manner: 23 cents retroactive to October 1, 1950; 2 cents effective January 1, 1951; 2 cents as of March 1, 1951; and 6 cents effective April 1, 1951, under an escalator clause contained in the agreement. The escalator clause provides for a wage increase or decrease of 1 cent an hour for each 1 point change, quarterly (with 178 as the base) in the Bureau of Labor Statistics Consumers' Price Index.

Road-service employees will receive their increase as follows: 5 cents retroactive to October 1, 1950; 5 cents effective January 1, 1951; 2.5 cents as of March 1, 1951; and 6 cents effective April 1, 1951, under the escalator-clause provision.

Agreement was reached on a 40-hour week for yard workers, in principle, but its establishment was deferred until January 1, 1952, because of the existing emergency and manpower shortages.

Two controversial work rules—pay for coupling or uncoupling air, steam, or signal hose by yardmen and rates of pay for road-service employees when they perform more than one class of service on a single trip—will be decided by a referee to be named by President Truman.

A 3-year moratorium, effective October 1, 1950, was placed on proposals for changes in rates of pay, rules or working conditions, except those in rules and working conditions initiated prior to June 1, 1950. The parties agreed, however, that the moratorium would not apply to requests for the negotiation of union-shop agreements. They further stipulated that if Government wage stabilization policy permits annual improvement wage increases, conferences may be held on or after July 1, 1952, to discuss whether such additional increases are justified.

## Meat Packing

The WSB, on May 18, approved a wage increase of 9 cents an hour for some 200,000 meat-packing workers employed by Swift & Co., Armour & Co., Cudahy Packing Co., and Wilson & Co. Workers covered by the contracts are represented by the Amalgamated Meat Cutters and Butcher Workmen (AFL), the United Packing-



house Workers (CIO), the National Brotherhood of Packinghouse Workers (Ind.) and the Brotherhood of Teamsters, Chauffeurs, Warehousemen and Helpers (AFL).

The wage increase (retroactive to the second week in February), when added to an August 1950 wage rise of 11 cents an hour, raised the meat workers' pay by slightly more than 14 percent over January 1950.

The Board voted eight to four for approval of the increase with industry members dissenting. In granting this approval the majority members of the Board held that, in effect, the parties to the contracts, under wage-reopening clauses of contracts negotiated on August 11, 1950, had used a broad form of escalator clause. Therefore, the parties to the contracts should not be "penalized because they used a broad form of reopening clause rather than a more limited form, namely, a simple cost-of-living escalator clause." The majority members added: "We are fully aware that this decision looks in the direction of a general policy."

The Board deferred action on agreements relating to an average wage rise of 2 cents an hour. This action would broaden wage differentials between the common labor entrance rate and the rates for skilled workers.

Subsequently, on May 21, the Board indicated that it would approve similar wage increases of 9 cents an hour for employees of other meatpackers where their wage adjustments usually follow the pattern of the Big Four packers.

### Electrical Products

The General Electric Co. and the United Electrical, Radio and Machine Workers (Ind.) reached agreement on a wage increase of 9 cents an hour on May 17, subject to WSB approval. Approximately 50,000 members of the union will receive the wage increase, retroactive to March 15, 1951. The increase corresponds to the pay raise given to members of the International Union of Electrical, Radio and Machine Workers (CIO), effective March 15, 1951, under an escalator clause in their contract.

On June 1, the IUE-CIO and Westinghouse Electric Corp. agreed to a 1-year contract pro-

viding for a wage increase of 9 cents an hour for approximately 51,000 workers, retroactive to April 16, 1951, and for a modified union shop. The payment of the increase is subject to stabilization approval.

### Textiles

The strike of approximately 40,000 textile workers at cotton and rayon mills in seven Southern States<sup>3</sup> was virtually terminated by the middle of May. Only an estimated 5,000 workers were still idle at the end of the month. Following a recommendation for ending the stoppage made by the policy committee of the Textile Workers Union (CIO), workers at various mills began to return to their jobs on May 7. A special mediation panel, appointed by the Director of the Federal Mediation and Conciliation Service in early May, assisted in terminating the strike and arranged for the resumption of negotiations at many of the mills affected.

### Shipbuilding

The WSB, on June 7, unanimously approved Atlantic Coast shipyard agreements providing 15-percent wage increases for about 25,000 workers. Payment is retroactive to January 1, 1951, under the terms of agreements negotiated by the Industrial Union of Marine and Shipbuilding Workers (CIO) with the Bethlehem Steel Co. and several other East Coast shipyard operators. The union and Bethlehem Steel Co. reached agreement on the wage increases for about 17,000 workers in the company's East Coast shipyards on February 19.

In approving these advances, the Board said the applications for approval were governed by, and approved within, a provision of General Wage Regulation 6 which permits wage increases above the 10-percent formula where base-pay-period inequities are involved. The Board found that shipbuilding had been a depressed industry in the past few years and the workers' wages had not increased in line with those in comparable industries. Bethlehem's shipyard workers received their last wage rise in 1948. "In recognition of the history peculiar to this industry," the Board added, "the parties were in process of correcting the above described abnormality in wage rates when wage



controls were imposed. The company had by January 20, 1951, made available to the union, in the Bethlehem case, the key rates eventually incorporated in the agreements. The industry had only recently begun to revive from its very low levels of activity."

The Pacific Coast District Metal Trades Council, representing 14 AFL affiliates, announced on June 4 that it had reached agreement with West Coast shipyard operators on a 1-year contract covering 27,000 workers. Under its terms, the workers will receive a 5-cent hourly wage increase and double time for overtime work, subject to WSB approval.

### Telephone

The Communications Workers of America (CIO) and two Bell System affiliates negotiated wage agreements in May and early June. Under an agreement between the union and Southern Bell Telephone Co. about 45,000 workers in nine southern States will receive wage increases ranging from \$3 to \$6 a week. The Southwestern Bell Telephone Co. and the union, on June 5, reached agreement on a 10-percent increase in basic wages, ranging from \$3 to \$8 a week for 52,000 workers, and the reclassification of 28 jobs as well as 21 cities in the system. The agreement averted a strike scheduled for June 5.

The union's national headquarters announced in late May that it will seek joint union-management administration of pensions in contract negotiations with the American Telephone & Telegraph Co. and its subsidiaries. Currently, the established pension plan is administered by the company.

### City Transit

The strike involving approximately 6,000 employees of the municipally owned Detroit Street Railways, which began on April 21, continued through May and early June. On June 4, the Street, Electric Railway and Motor Coach Employees Union (AFL), representing the workers, and the Detroit Street Railway Commission agreed to submit their dispute to arbitration, but the workers did not return to their jobs.

A State act prohibiting strikes by public workers (the 1947 Hutchinson Act), under which all but several hundred of the striking workers were discharged on April 25,<sup>3</sup> was upheld by a Circuit Court in a test case on June 5.

In New York City, the Transport Workers Union (CIO) threatened to call a strike July 1 of union members employed by the municipal transit system. Wages and transition to a 40-hour workweek were the issues in this dispute. Currently, the basic workweek is 44 to 48 hours. The union proposed a reduction in workweek to 40 hours and payment to all workers of wages received for 48 hours' work plus a 10-percent general wage increase. City officials stated that the workers, if they should strike, would be discharged under authority of the State's Condon-Wadlin Law, which prohibits strikes by civil-service workers.

Disputes involving transit workers resulted in small work stoppages in additional cities during May and early June, including Duluth, Minn., Superior, Wis., Pittsburgh, Pa., and nearby areas, Terre Haute, Anderson, Richmond, and Muncie, Ind.

### Building Service

The Building Service Employees International Union (AFL) and the Realty Advisory Board (representing New York City apartment house owners) reached agreement on a new 3-year contract on May 11. The agreement averted a strike scheduled for May 14 by elevator operators and other service workers. It provides for: A wage increase of \$2.50 a week retroactive to April 20, the expiration date of the previous contract; reduction of the workweek from 48 to 46 hours, 18 months after the effective date of the contract; a wage-reopening clause, also effective after 18 months, with provision for arbitration in the event the parties fail to agree; a 3-year no-strike, no-lock-out clause; and the equivalent of \$1 a week in welfare benefits.

### Mobilization Activities

The Wage Stabilization Board, following a public hearing, unanimously approved on June 6



the annual-improvement wage increases covered in the General Motors Corp. agreement with the United Automobile Workers (CIO), and in similar agreements now pending before the Board. The General Motors agreement provides for an annual wage improvement factor of 4 cents an hour, which is about 2 percent of the average hourly wage in the automobile industry. A large majority of the contracts in the automobile industry contain provisions for similar annual-improvement wage increases. This action on the improvement factor (or productivity increase) will be taken into consideration in the development of a new general wage policy, the Board stated.

On May 17, the Wage Stabilization Board issued Regulation No. 11 which permits farm workers' wages to rise to 95 cents an hour without reference to the 10-percent formula of General Wage Regulation 6. The new regulation retains the 10-percent wage rise limitation, however, on wages exceeding 95 cents an hour or on adjustments that result in rates above 95 cents an hour.

The new regulation also permits increases in

farm workers' wages without the Board's approval, up to and including any one of the following rates of pay: (1) The piece rate customarily considered as corresponding to 95 cents an hour for the particular work, stage of crop season, and weather conditions; (2) \$225 a month without room and board; (3) \$195 a month, plus the use of a house and the usual prerequisites of a full-time agricultural employee; and (4) \$175 a month with room and board.

The United Labor Policy Committee, on May 28, chose Joseph D. Keenan, secretary of the AFL Metal Trades Council, to be special assistant to the director of the Defense Production Administration. O. A. Knight, president of the Oil Workers International Union (CIO) was named as special assistant to the director of the National Production Authority.

<sup>1</sup> Prepared in the Division of Industrial Relations.

<sup>2</sup> The Army has operated the railroads since August 27, 1950, when the President ordered their seizure to avert a threatened Nation-wide strike by members of the Brotherhood of Railroad Trainmen (Ind.) and the Order of Railway Conductors (Ind.).

<sup>3</sup> See June issue of the Monthly Labor Review (p. 713).



# Publications of Labor Interest

**EDITOR'S NOTE.**—Correspondence regarding publications to which reference is made in this list should be addressed to the respective publishing agencies mentioned. Data on prices, if readily available, were shown with the title series.

## Special Reviews

*Defense Without Inflation.* By Albert G. Hart. New York, Twentieth Century Fund, 1951. 186 pp. \$2.  
*Economic Policies for National Defense.* Washington, Chamber of Commerce of the United States, 1951. 36 pp. 50 cents.

In these two volumes, economic policies for dealing with the present emergency are outlined. In both, curbing inflation is a primary concern and the point is kept before the reader that the existing need for building defenses requires different methods from those necessary in all-out war.

The Twentieth Century Fund states that we must avoid undermining the productivity of the economy, and describes the present need as an "economic strategy of readiness." It continues: "Because we face a long and indefinite emergency, we must use policies we can live with, and still keep the economy healthy." The best balance between military and civilian production is the aim advocated by the Chamber of Commerce, with emphasis on policies which will "encourage the earliest practical restoration of free market processes."

The Fund warns that a drop in output of consumer goods is inevitable, and neither the Fund nor the Chamber foresees a quick return to full-scale civilian production. The hope is expressed that in 2 to 3 years the share of resources devoted to consumer requirements can be stepped up.

Highly complex economic relationships are presented with marked simplicity. The layman particularly will find in the more comprehensive Fund report material which comes within his personal experience. For example, it states that inflation sets up distrust and conflict within a nation. People who do what patriotic citizens know they should avoid actually reap rewards (e. g., premiums for hoarding scarce materials); those who had saved money during the war to buy things at a later date found that part of the value of their savings melted away in 1946.

Both studies point out that wage-price controls will not insure economic health during the emergency; efficient manpower distribution, anti-inflationary fiscal and monetary policies, credit controls, individual savings, and a sound tax policy are required.

Price and wage controls must be closely coordinated and must be flexible. The Fund states: "Because direct controls tend to wear out, a readiness economy must guard against subjecting them to heavy strain too early." According to the Chamber, direct price and wage controls at best "can do little more than bring about a time-lag in the upward movement of even the controlled wages and prices, when the whole wage-price structure is subjected to the pressure of an inflationary increase in total spending power."

It is pointed out by the Chamber that between the start of the Korean conflict and March 1951 there was no Government deficit financing; rather, the private economy operated on a deficit-spending basis.

The Fund maintains that "we have barely begun to fight inflation along monetary lines" and "the problem of excess liquidity remains."

A pay-as-we-go tax policy is outlined by both groups. The Chamber reaffirms its "stand against any policy of weakness on the pay-as-we-go principle in paying for the defense effort, because of both the short-run and long-run dangers in anything but absolutely minimum recourse to further deficit financing." The Fund offers two alternatives. The first is "a base program . . . that would match the lowest curve of outlay . . . . Then any bulge . . . would call for additional tax legislation—presumably every few months." The other alternative is "to match the highest curve . . . such a program would contain scheduled steps of tax rates [which, if not required,] could be deferred."

Debt reduction is not within the terms of reference of either reporting group. Yet, the avoidance of reference to any lessening of the national debt is notable. This is especially true in view of the expressed belief that understanding cooperation of the people is even more necessary than in World War II, and should be "provided for in the processes leading to formulation of policy."

—MARGARET H. SCHOENFELD.

*A Philosophy of Labor.* By Frank Tannenbaum. New York, Alfred A. Knopf, Inc., 1951. 199 pp. \$2.75.

"There is," Professor Tannenbaum proclaims without undue sentimentousness, "no simple logic to a broad economic and political movement." His own philosophy is somewhat eclectic, like a combination salad, including some warmed-over Perlman, a dash of Marx, and a garnish of watered syndicalism. The dressing is a sort of inner-check neo-humanism of the type which enjoyed a brief hour in 1930 under the leadership of Professor Irving Babbitt of Harvard.

The trade-union "satisfies the human craving for moral status in a recognizable society." It results from "a revulsion against social atomization on the one hand, and the divorce of owner and worker from their historical



function as moral agents in industry on the other." The gap between the worker and his work cannot be bridged by improvements in conditions, whether through better wages or soothing wall colors. What the worker wants more, the author contends, is to belong to something "real."

The trade-union was the expression of this reality. Professor Tannenbaum appears to be less certain that it is the substance. "The common needs of men thrown together and molded into a society by common experience had to find a vehicle. Under the circumstances that vehicle could only be the union." The labor organization therefore becomes a subsociety through which workers give meaning to their existence in the larger society. In Professor Tannenbaum's view, it is *only* the union which can thus validate workers' existence.

This gives the 40 million non-union workers a somewhat dismal prospect: no union, no feeling of belonging; they presumably must seek relief as best they can in such classless activities and enterprises as community organizations, parent-teacher groups, the Masons, the Knights of Columbus, the church, the Elks, and the Lions Club.

Having devoted more than a hundred pages to establishing the points that the union's purpose and function are moral rather than economic, Professor Tannenbaum does a sort of philosophical double-take. The union "has now become so powerful that it has reduced both the worker (member) and the employer to a subordinate position." The monopoly the union has achieved permits it to enforce its demands on the employer on penalty of destruction. The union now "destroys the basis upon which the older institutions rested." It becomes a "private lawmaking" body which imposes economic disciplines over both workers and employers.

In short, Professor Tannenbaum next sees the trade-union operating beyond the "temporary delineation of a moving line," which is the workaday economic dispute, into the realm of joint management responsibility, a sort of syndicate with management on the West Germany co-determination plane. One may grapple with the question of how many definitions can you give. But the author goes further still. "The union . . . may yet save the corporation . . . by incorporating it into its own natural 'society'." . . . From this point of view, the challenge to management by the trade-union is salutary and hopeful. It is a route . . . for saving . . . the contemporary industrial system." He offers this same modus for the preservation of democratic liberties and as the alternative to the "welfare" state, which he holds nearly synonymous with "police" state.

In the end, he offers the transmigrated trade-union as the "real alternative to the authoritarian state." Corporation and union "merge in a common ownership." He leaves us with a somewhat misty vision of idealized functionaries each conscious of rights and duties in the common weal, controlled by the power of "common identity."

What price satisfaction now?

—L. R. K.

*Crime on the Labor Front.* By Malcolm Johnson. New York, McGraw-Hill Book Co., Inc., 1950. 243 pp. \$3.50.

Written from a prolabor point of view, "Crime on the Labor Front" is intended to serve as a warning, not only to those few unions which at one time or another permitted themselves to be controlled by racketeers, but to all the unions in the United States. Mr. Johnson does not disclose any new rackets in unions which had not already been made public in previous years.

His conclusions are that "the basic causes of labor criminality appear to be strikingly similar wherever they appear. When, for instance, the hiring function is completely controlled by a small clique which fails to represent both labor and capital, then the situation is ripe for exploitation. When a union constitution gives the leader of that organization unlimited powers, then the rank and file are at the mercy of their leader. The union boss may be the Grand Old Man of Labor himself, but the man who succeeds him, who will operate under the same dictatorial constitution, may be first cousin to the devil. When a union does not have to account publicly for its expenditure of funds and is not forced to take full responsibility for the actions of its members, then you will find graft and lawlessness. When there is an oversupply of labor and desperate competition for jobs, the chances are good that some of the men handing out those jobs will fall prey to the temptation of bribes and other little 'favors'."

The remedies suggested by Mr. Johnson call, on the one hand, for stricter enforcement of the law by public authorities, and on the other hand, for an aroused public and an enlightened labor group to "change the dollar-concepts of those labor leaders and businessmen who, within their legal rights, countenance corruption in their very backyards."

The warning to all unions is contained in the last paragraph of the book: "The great majority of unions in this country are run intelligently and honestly. It will be a great blow to the nation if their work comes to naught because of the crime and corruption in a few."

—BORIS STERN.

*Russia's Soviet Economy.* By Harry Schwartz. New York, Prentice-Hall, Inc., 1950. xxvi, 592 pp. \$6.65.

To know Russia with realism, declares William Henry Chamberlin in the foreword to this book, it is imperatively necessary to neither over- nor under-estimate its potentialities. Especially so for Americans. In the end, the effectiveness of our productive system over that of the Russians will determine results, and it will be fully as important to understand theirs as to operate ours. Toward this understanding Mr. Schwartz' book is both pointed and useful.

For example: "The difference in economic organization between the United States and the Soviet Union could be an important factor in a war between them. The highly centralized control of production in the USSR discourages



initiative at lower administrative levels. . . . Directors . . . have little to say. . . . The reliance upon a long-term plan . . . leads to different habits of thought from those [of] entrepreneurs who must gauge their work in the light of . . . market conditions and consumer preferences. These considerations suggest . . . a flexibility and adaptability in the American economy far superior to that in the USSR. . . .

"In sum, it is not the quantitative strength of the Soviet economy as such that raises concern in comparison. . . . Rather it is the concentration of that economy upon direct and indirect military production, in peace and even more in war."

### Child and Youth Employment

*Federal Regulation of Child Labor.* By Robert D. Leiter. (In American Journal of Economics and Sociology, New York, April 1951, pp. 293-300. \$1.)

Chronological account of Federal laws enacted from 1916 to 1949 for regulation of child labor.

*Children Working on Fruit and Vegetable Farms, New York State, 1950.* New York, State Department of Labor, Division of Industrial Relations, Women in Industry and Minimum Wage, 1951. 32 pp.; processed. (Special Labor News Memorandum No. 28.)

*Job Upgrading Program for Out-of-School Youth.* By Virginia R. Allan. (In American Child, National Child Labor Committee, New York, February 1951, pp. 1-4.)

Description of a training program, administered by the Detroit Board of Education, to teach young people 16 to 21 years of age how to become successful workers.

*The Operation of Power-Driven Metal-Forming, Punching, and Shearing Machines.* Washington, U. S. Department of Labor, Bureau of Labor Standards, 1951. 37 pp. (Bull. No. 139; Occupational Hazards to Young Workers, Report No. 8.) 20 cents, Superintendent of Documents, Washington.

The information in this report served as the basis of the order by the Secretary of Labor, effective October 30, 1950, declaring the operation of these machines hazardous for young workers.

### Industrial Relations

*Industrial Relations Year Book, 1951.* Edited by Bernard Seltzer. Chicago, Dartnell Corporation, 1951. 224 pp., bibliography, illus. \$5.

Comprehensive survey of recent developments in industrial relations, with directories of professional associations, unions, and individuals active in the field of labor-management relations, and a list of industrial-relations courses in colleges and universities.

*Proceedings of the Third Annual Meeting, Industrial Relations Research Association, Chicago, Ill., December 28-29, 1950.* Edited by Milton Derber. [Champaign, Ill.?], Industrial Relations Research Assn., 1951. 388 pp. (Pub. No. 6.)

Abstracts from the presidential address of George W. Taylor were published in the Monthly Labor Review, February 1951 (p. 140).

*A Guide to Retail Employee Communications.* By William Paul Shaughnessy. Pittsburgh, University of Pittsburgh, Research Bureau for Retail Training, 1950. 31 pp.

*Labor Injunctions in Action: A Five-Year Survey in Los Angeles County.* By Benjamin Aaron and William Levin. (In California Law Review, Berkeley, March 1951, pp. 42-67. \$1.50.)

*Can Wildcat Strikes and Slowdowns be Prevented?* By Richard C. Smyth. (In Personnel, New York, March 1951, pp. 351-359. \$1.)

Discussion of causes of wildcat strikes, with suggestions for coping with the problem.

*Permissibility of Lock-Outs, Shut-Downs, and Plant Removals.* (In Columbia Law Review, New York, December 1950, pp. 1123-1131. \$1.)

*The Winnipeg General Strike.* By D. C. Masters. Toronto, University of Toronto Press, 1950. 159 pp., illus. \$3.50.

Exhaustive study of the bitterly fought 6-weeks' general strike in Winnipeg, Manitoba, in 1919, against the background of western Canadian radicalism and the labor unrest following World War I. On the long-debated controversy concerning the conviction and imprisonment of the strike leaders on charges of conspiracy to overthrow the Canadian Government, Professor Masters holds that the strike reflected only a unanimous, and legitimate, movement within Winnipeg labor ranks to secure the principle of collective bargaining.

### Industrial Safety; Workmen's Compensation

*Progress Reports of Governors' Conferences on Industrial Safety to the President's Conference on Industrial Safety, [Washington], May 8-9, 1951.* Washington, U. S. Department of Labor, Bureau of Labor Standards, 1951. 42 pp.; processed. Free.

*Machine Tools and Their Hazards.* Washington, U. S. Department of Labor, Bureau of Labor Standards, 1951. 34 pp., illus. (Bull. No. 129.) 15 cents, Superintendent of Documents, Washington.

*Work Injuries in the Lumber and Wood Products Industry, California, 1950.* San Francisco, Department of Industrial Relations, Division of Labor Statistics and Research, 1951. 11 pp.; processed.

*Workmen's Compensation Problems, 1950.* Washington, U. S. Department of Labor, Bureau of Labor Standards, 1951. 248 pp. (Bull. No. 142.) 50 cents, Superintendent of Documents, Washington.

Proceedings of 36th Annual Convention of International Association of Industrial Accident Boards and Commissions, Milwaukee, September 25-28, 1950.



## Labor and Social Legislation

*Annual Digest of State and Federal Labor Legislation, January 1, 1950–November 1, 1950.* Washington, U. S. Department of Labor, Bureau of Labor Standards, 1951. 52 pp. (Bull. No. 143.) 20 cents, Superintendent of Documents, Washington.

*State and Federal Hours Limitations—A Summary.* Washington, U. S. Department of Labor, Bureau of Labor Standards, 1950. 143 pp. (Bull. No. 116 (revised).) Limited free distribution.

*John B. Andrews Memorial Symposium on Labor Legislation and Social Security, University of Wisconsin, November 4 and 5, 1949.* Madison, University of Wisconsin, Industrial Relations Center, [1950?]. 198 pp.

Reviews pioneering work of the American Association for Labor Legislation, appraises existing protective labor and social legislation, and discusses future needs. Specific subjects treated include unemployment and health insurance, State responsibility for child labor, wages, hours, working conditions, and fair employment practices.

*A Paradox of Our National Labor Law.* By William G. Rice, Jr. (In *Marquette Law Review*, Milwaukee, Wis., Spring 1951, pp. 233–254. \$1.)

Concludes that the terms of the Anti-Injunction [Norris-LaGuardia] Act and the National Labor Relations [Wagner] Act must be reconciled (either by legislation or interpretation) in order to give collective bargaining the benefit of complete support by the courts.

*Das Arbeitsrecht in der Modernen Gesellschaft.* By Franz L. Neumann. (In *Recht der Arbeit*, Köln, 4. Jahrgang, Heft 1, Januar 1951, pp. 1–5.)

Discussion of significant trends in labor law under the special conditions of modern industrial society, and of the respective functions of government, trade-unions, and works councils.

*Establishing a Business in Cuba.* Washington, U. S. Department of Commerce, Bureau of Foreign and Domestic Commerce, Office of International Trade, December 1950. 12 pp. (International Reference Service, Vol. VII, No. 121.) 10 cents, Superintendent of Documents, Washington.

Includes a section on labor legislation.

*The New Industrial Law.* By W. F. Frank. London, Thames Bank Publishing Co., Ltd., 1950. xix, 456 pp. 35s. net.

This book deals with a variety of economic laws applicable to industry in Great Britain, rather than with labor laws. It has, however, several chapters on labor problems, including the mobility, training, and placement of the labor force. There is also some discussion of unemployment and of trade-unions in their relationship to government and industry. The arrangement is to discuss the problem, to describe (historically) methods of dealing with it, and to give detailed summaries of the related acts (full text in some cases).

*El Derecho al Trabajo y su Protección en la Legislación Española (la Lucha Contra el Paro).* By Rafael Gonzalez Gallego. Madrid, Samaran, 1950. 326 pp.

## Medical Care and Sickness Insurance

*Health Programs in Collective Bargaining.* By John M. Brumm. Urbana, University of Illinois, Institute of Labor and Industrial Relations, 1951. 23 pp., bibliography. (Bull. Series, Vol. 3, No. 1.) 10 cents to nonresidents of Illinois.

*Medical Care for Public Assistance Recipients.* By W. Palmer Dearing, M.D. *Medical Services and the Social Security Act Amendments of 1950.* By Selma J. Mushkin. (In *Public Health Reports*, Federal Security Agency, Public Health Service, Washington, January 26, 1951, pp. 89–97; 98–114, charts.) 10 cents, Superintendent of Documents, Washington.)

These articles concern the liberalizing effect of the 1950 amendments to the Social Security Act as to medical care for public assistance beneficiaries under State-wide programs.

*Medical Care for Seamen: The Origin of Public Medical Service in the United States.* By Robert Straus. New Haven, Conn., Yale University Press, 1950. xvi, 165 pp. (Merchant Seamen Studies, Vol. I, Department of Sociology, Yale University.) \$3.75.

The history and development of Federal medical care for American merchant seamen are traced from its beginnings, as well as the evolution from it of the U. S. Public Health Service. Special problems of seamen and various legislative enactments and other activities in their behalf are discussed. Brief chapters review provisions for medical and welfare services for seamen in other countries, and also for groups other than seamen in the United States.

*Income During Disability.* By Eveline M. Burns. (In *Survey*, New York, May 1951, pp. 203–205. 50 cents.)

Appraisal of the four State programs (Rhode Island, California, New Jersey, and New York) for payment of cash benefits during illness.

*The New York Disability Benefits System.* (In *Industrial and Labor Relations Review*, Ithaca, N. Y., April 1951, pp. 415–438. \$1.25.)

Divergent evaluations of the State law, enacted in 1949, are presented in two articles, by Tobert Tilove and M. William Zucker, respectively, and in comments by six others.

*Temporary and Permanent Disability Benefits—An Annotated Bibliography.* Compiled by Ruth K. Bray. Washington, Federal Security Agency, Library, April 1951. 36 pp.; processed.

*Temporary Disability Insurance Coordinated with Unemployment Insurance—Suggestions for State Studies, and Bibliography.* Washington, U. S. Department of Labor, Bureau of Employment Security, 1951. 31 pp.; processed. Free.



*Temporary Disability Insurance—Why Coordinate with Unemployment Insurance?* Washington, U. S. Department of Labor, Bureau of Employment Security, 1951. 10 pp.; processed. Free.

### Military Leave and Related Policies

*Company Military Leave Policies.* New York, National Industrial Conference Board, Inc., 1951. 40 pp., charts. (Studies in Personnel Policy, No. 114.) \$2.

*Military Leave Survey.* By Ruth Kellogg. New York, American Management Association, [1951?]. 20 pp.; processed. 50 cents to members, 75 cents to non-members of Association.

*Hiring and Promotion of Reservists.* Washington, Chamber of Commerce of the United States, Committee on National Defense, 1951. 12 pp., chart; processed. Single copies free.

Survey of employer practices in employment and promotion of men in the military reserves or eligible for selective service induction.

*Pay Allowances and Other Policies Covering Employees Called to Military Service.* [Chicago?], Dartnell Corporation, [1951?]. 14 pp.; processed.

### Minority Groups

*Fair Employment Practice Legislation in the United States, Federal-State-Municipal.* By W. Brooke Graves. Washington, U. S. Library of Congress, Legislative Reference Service, April 1951. 239 pp., bibliography. (Public Affairs Bull. No. 93.) \$1.65.

*Progress in Race Relations.* By Roma K. McNickle. Washington (1205 19th Street NW.), Editorial Research Reports, 1951. 18 pp. (Vol. I, 1951, No. 15.) \$1.

Includes a brief review of the employment situation of Negro workers.

*Questions and Answers About Employment on Merit.* Philadelphia, American Friends Service Committee, Inc., [1951]. 20 pp., bibliography, illus. Single copies free.

*They Made It.* New York, National Urban League, [1950?]. 22 pp., illus. 10 cents.

Reproduces material, first printed in the Chicago Defender, on success of Negro men and women in specified occupations.

### Occupations

*Everyday Occupations.* By Mildred A. Davey, Elizabeth M. Smith, Theodore R. Myers. Boston, D. C. Heath and Co., 1950. 451 pp., bibliographies, illus. 2d ed. \$3.

Prepared as a textbook for high-school students in courses on occupations. A few occupations were selected from each major industry group for detailed analysis according to education, training, and personal qualifica-

tions required; nature of work; earnings; working conditions; and opportunities for promotion. Lists advantages and disadvantages for each area of work, educational institutions offering training, suggestions for class discussion and research, and sources of further information.

*Careers in Chemistry and Chemical Engineering.* [Washington], American Chemical Society, 1951. 94 pp., bibliographies, charts, illus. \$1.

Collection of articles, by different writers, reprinted from issues of Chemical and Engineering News, July 3 to December 25, 1950.

*Employment Outlook in Men's Tailored Clothing Industry.* Washington, U. S. Department of Labor, Bureau of Labor Statistics, in cooperation with Veterans Administration, 1951. 32 pp., charts, illus. (BLS Bull. No. 1010; Occupational Outlook Series.) 25 cents, Superintendent of Documents, Washington.

*Professional Opportunities in Mathematics.* (In American Mathematical Monthly, Mathematical Association of America, University of Buffalo, Buffalo, N. Y., January 1951, pp. 1-24. Reprints of article available at 25 cents per copy.)

*Elementary and Secondary School Principalships—Chief Advancement Opportunity for Public School Teachers.* Washington, U. S. Department of Labor, Bureau of Labor Statistics, 1951. 11 pp.; processed. Free.

A similar report on employment opportunities for counselors in secondary and elementary schools is also available. Both reports are supplements to BLS Bulletin No. 972, Employment Outlook for Elementary and Secondary School Teachers (35 cents, Superintendent of Documents, Washington).

*Employment Opportunities for Student Personnel Workers in Colleges and Universities.* Washington, U. S. Department of Labor, Bureau of Labor Statistics, 1951. 26 pp.; processed. Free.

### Pensions

*Company-Union Agreement and Unilateral Pension Systems.* Chicago, U. S. Railroad Retirement Board, 1951. 27 pp.; processed.

Summarizes major provisions of 52 industrial pension plans in effect in 1950. Discusses effects on private pension plans of the 1950 amendments to the Federal Social Security Act, and gives figures on coverage by public and private pension plans in the United States.

*Management Faces the Pension Problem.* New York, National Association of Manufacturers, Industrial Relations Division, 1950. 24 pp. (Economic Policy Division Series, No. 32.)

*The Pension Turnabout.* By Holmes Alexander. (In Nation's Business, Washington, June 1951, pp. 43-45, 60, 61.)

Management, rather than labor unions, is taking the initiative in originating private pension plans, according to the article. Gives reasons for the new trend.



*Pensions for Coal Miners.* Washington, United Mine Workers of America, Welfare and Retirement Fund, [1951]. 20 pp., illus.

Pension operations of the Welfare and Retirement Fund, United Mine Workers of America, for bituminous-coal miners since inception of the program are briefly sketched, largely by case histories.

*Public-School Retirement at the Half Century.* Washington, National Education Association, Research Division, 1950. 61 pp. (Research Bull., Vol. 28, No. 4.) 50 cents.

Analyzes statutory provisions of State retirement systems, as well as of some local programs, as of 1950.

*Report of the Illinois Public Employees Pension Laws Commission.* [Springfield?], 1951. 141 pp. and appended tables.

*Pension Legislation for Public Employees in New Jersey.* New Brunswick, N. J., Rutgers University, Bureau of Government Research, December 1950. 59 pp.; processed. 50 cents.

## Social Security

*Current Issues in Social Security.* Edited by Lois MacDonald. New York, New York University, Institute of Labor Relations and Social Security, 1951. 147 pp., bibliography.

Materials presented at a conference, May 5-6, 1950, sponsored by Institute of Labor Relations and Social Security, New York University. Contains an evaluation of 15 years under the Federal Social Security Act and articles on unemployment insurance, cash disability benefits legislation, pensions, health insurance, and medical care (including British experience).

*Five Lectures on Social Security.* By Edwin E. Witte. Rio Piedras, University of Puerto Rico, Labor Relations Institute, 1951. 74 pp.

*Old-Age and Survivors Insurance—Coverage, Eligibility Requirements, and Benefit Payments.* By F. F. Fauri. Washington, United States Congress, Senate, Committee on Finance, 1950. 20 pp.

Tabular summary of the 1950 amendments to the Social Security Act in comparison with provisions formerly in effect.

*Administration of Old Age Security in California.* By Margaret Greenfield. Berkeley, University of California, Bureau of Public Administration, 1950. 92 pp.; processed. \$1.25.

*Effect of Social Security Act Amendments in California.* By Margaret Greenfield. Berkeley, University of California, Bureau of Public Administration, 1951. 39 pp., bibliography; processed. (1951 Legislative Problems, No. 6.) \$1.

*Bibliographie Internationale de Droit Social.* By R. Geysen. Brussels, Aux Editions "Erasme" S. A., 1950. 76 pp.

The bibliography covers international and national (various countries) aspects of social security, including social insurance, family allowances, and vacation payments.

## Unemployment Insurance

*Trends and Problems in Unemployment Insurance.* By Irving N. King. Urbana, University of Illinois, Institute of Labor and Industrial Relations, 1950. 35 pp., charts. (Bulletin Series, Vol. 4, No. 2.) 10 cents to nonresidents of Illinois.

*The Adequacy of Social Security in Massachusetts: Unemployment Compensation.* By T. Noel Stern. (In Boston University Law Review, Boston, April 1951, pp. 179-190. \$1.)

*An Appraisal of Unemployment Compensation in Rhode Island.* Providence, Rhode Island Public Expenditure Council, [1951?]. 28 pp.

*Unemployment Insurance in Virginia—Employer's Handbook.* Richmond, Unemployment Compensation Commission of Virginia, 1950. 38 pp.

*[Railroad] Unemployment [Insurance] Beneficiaries in 5-Year Period, 1946-50: Part I—General Survey; Part II—Occupational and Regional Differences; Part III—Age, Sex, and Benefit Class.* (In Monthly Review, U. S. Railroad Retirement Board, Chicago, April 1951, pp. 69-72, charts; May 1951, pp. 87-93; June 1951, pp. 109-113.)

## Wages, Salaries, and Hours of Labor

*Union Wages and Hours: Building Trades, July 1, 1950.* Washington, U. S. Department of Labor, Bureau of Labor Statistics, 1951. 33 pp., chart. (Bull. No. 1011.) 20 cents, Superintendent of Documents, Washington.

A report on union wages and hours of motortruck drivers and helpers, July 1, 1950, is available as BLS Bulletin No. 1012 (20 cents, Superintendent of Documents). Reports for the baking and printing industries and for local transit operating employees are in preparation.

*Wage Chronology No. 14: Ford Motor Co., 1941-50.* By Albert A. Belman. Washington, U. S. Department of Labor, Bureau of Labor Statistics, 1951. 5 pp. (Serial No. R. 2029; reprinted from Monthly Labor Review, April 1951.) Free.

*Wages in California—1950 Supplement.* Berkeley, University of California, Institute of Industrial Relations, [1951]. 29 pp.

Statistical supplement to 1948 edition (*Wages in California—War and Postwar Changes*), which gave figures for 1940 to 1947, inclusive. The present edition, also giving data back to 1940, is without text and is meant to be used in conjunction with the text of the earlier edition.



*Problems and Policies of Dispute Settlement and Wage Stabilization During World War II.* Urbana, University of Illinois, Institute of Labor and Industrial Relations, 1951. 28 pp. (Reprint Series, No. 9.)

Summary and conclusions of a 380-page report, of the same title, published as Bulletin No. 1009 of the Bureau of Labor Statistics, U. S. Department of Labor (75 cents, Superintendent of Documents, Washington).

*Settlement of Labor Disputes and Wage Stabilization.* New York, National Association of Manufacturers, 1951. 39 pp.

Develops the Association's views on employer opposition to extension of the Wage Stabilization Board's jurisdiction to settlement of disputes.

*Wage Determination and Involuntary Unemployment.* By Albert Rees. (In *Journal of Political Economy*, Chicago, April 1951, pp. 143-153. \$1.50.)

A contribution toward the theory of wage determination in nonunionized labor markets, with particular attention to the downward rigidity of wages in the presence of involuntary unemployment.

*Payment of Wages for Holidays, [Great Britain].* (In *Ministry of Labor Gazette*, London, April 1951, pp. 135-140. 9d. net, H. M. Stationery Office, London.)

*Wage Incentive Schemes.* London, Ministry of Labor and National Service, 1951. 44 pp. 1s. 6d. net, H. M. Stationery Office, London.

Points up safeguards which have made wage incentive schemes acceptable to workers in Great Britain, and cites examples of piecework and bonus plans, many from collective-bargaining agreements. Includes a table, not hitherto published, showing proportions of pieceworkers, by industry, in October 1949.

## Women in Industry

*The Outlook for Women in Community Organization in Social Work.* Washington, U. S. Department of Labor, Women's Bureau, 1951. 41 pp., bibliographical footnotes, illus. (Bull. No. 235-5.) 20 cents, Superintendent of Documents, Washington.

*While Mothers Work at Defense Jobs.* By I. Evelyn Smith. (In *The Child*, Federal Security Agency, Social Security Administration, Children's Bureau, Washington, March 1951, pp. 125, 126, 135.)

Discussion of the need for community provision of satisfactory care for children of working mothers.

*Women's Work—What is it Worth? A Discussion Pamphlet on Equal Pay for Equal Work and Related Questions.* By Marion V. Royce. Geneva, World's Young Women's Christian Association, [1950?]. 51 pp. 20 cents.

*Filipino Women—Their Role in the Progress of Their Nation.* Washington, U. S. Department of Labor, Women's Bureau, 1951. 9 pp., processed. Free.

## Miscellaneous

*The Culture of Industrial Man.* By Paul Meadows. Lincoln, University of Nebraska Press, 1950. 216 pp., bibliographical footnotes. \$3.75.

Collection of articles, previously published, in which the author gives a sociological interpretation of the impact of science and technology on our lives.

*The Dynamics of Business Cycles: A Study in Economic Fluctuations.* By Jan Tinbergen and J. J. Polak. Chicago, University of Chicago Press, 1950. 366 pp., charts. \$5.

Based on Professor Tinbergen's *Economische Bewegingsleer*, [Amsterdam, 1942], attention is concentrated on explanation of economic movements. Directed to an audience of readers who "have mastered economics."

*Industrial Organization and Management.* By Lawrence L. Bethel and others. New York, McGraw-Hill Book Co., Inc., 1950. 851 pp., bibliographies, charts, forms, illus. 2d ed. \$5.50.

Revision of the 1945 edition, which emphasized the interdependence of the varied functions of management. In recognition of significant changes since the end of World War II, the authors have inserted a new chapter, *Industrial America—Control at the Mid-Century*, and have entirely revised the section on Administration of Industrial Relations.

*Survey of Labor Economics.* By Florence Peterson. New York, Harper & Brothers, 1951. 871 pp., bibliographies, charts. Rev. ed. \$5.

*Monthly Index Numbers of Employment, Payrolls and Average Earnings with Average Weekly Earnings, [Canada], 1947-1950 (1939=100).* Ottawa, Department of Trade and Commerce, Dominion Bureau of Statistics, 1951. 73 pp., charts. 40 cents.

*The Statistics of Absenteeism in Coal Mining, [Great Britain].* By S. Moos. (In *Manchester School of Economic and Social Studies*, Manchester, England, January 1951, pp. 89-108. 6s.)

*Year Book of Labor Statistics and Research, 1949.* [Tokyo?], Ministry of Labor, Division of Labor Statistics and Research, [1951]. 284 pp., charts. In Japanese and English.

*Industrial Revolution in Mexico.* By Sanford A. Mosk. Berkeley and Los Angeles, University of California Press, 1950. 331 pp. \$3.75.

Includes some discussion of labor matters.

*Scandinavia—Between East and West.* Edited by Henning Friis. Ithaca, N. Y., Cornell University Press, 1950. 388 pp., bibliography. (Publication of New York School for Social Research.) \$4.50.

Contains chapters on the Labor Movement and Industrial Relations, Social Welfare, Housing, and Producer and Consumer Cooperatives.



# Current Labor Statistics

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## A: Employment and Payrolls

TABLE A-1: Estimated Total Labor Force Classified by Employment Status, Hours Worked, and Sex

Estimated number of persons 14 years of age and over <sup>1</sup> (in thousands)														
Labor force	1951					1950								
	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov. <sup>2</sup>	Oct.	Sept. <sup>3</sup>	Aug.	July <sup>3</sup>	June	May	
	Total, both sexes													
	(4)	(4)	(4)	(4)	(4)	64,674	65,453	65,438	65,020	66,264	65,742	66,177	64,108	
Total labor force <sup>4</sup> .....	62,803	61,789	62,325	61,313	61,514	62,538	63,512	63,704	63,567	64,967	64,896	64,896	62,788	
Civilian labor force.....	1,609	1,744	2,147	2,417	2,903	2,229	2,240	1,940	2,341	2,500	3,213	3,384	3,057	
Unemployment.....	862	825	966	1,059	1,184	1,153	1,246	955	1,107	1,051	1,514	1,629	1,130	
Unemployed 4 weeks or less.....	342	366	502	640	577	498	475	420	465	679	754	954	634	
Unemployed 5-10 weeks.....	91	173	215	276	208	167	147	128	301	221	240	181	252	
Unemployed 11-14 weeks.....	163	237	298	241	281	217	175	183	272	266	334	474	559	
Unemployed 15-26 weeks.....	153	145	167	213	183	194	204	257	299	285	361	439	481	
Unemployed over 26 weeks.....	61,193	60,044	60,179	58,905	59,010	60,308	61,271	61,764	61,226	62,367	61,214	61,482	59,731	
Employment.....	53,753	53,400	53,786	52,978	52,963	54,073	53,721	53,273	53,415	54,207	52,774	52,435	51,699	
Nonagricultural.....	45,055	43,996	44,083	42,911	43,305	44,177	43,546	42,720	42,822	43,835	42,072	43,117	42,033	
Worked 35 hours or more.....	4,931	5,051	5,476	5,806	5,561	6,002	6,417	7,023	7,023	6,583	10,201	8,153	5,149	
Worked 15-34 hours.....	2,071	2,185	2,311	2,256	2,251	2,319	2,331	1,999	1,999	1,864	1,545	1,630	1,843	
Worked 1-14 hours <sup>5</sup> .....	1,697	1,567	1,945	2,022	1,678	1,577	1,427	1,531	2,561	4,348	6,852	2,323	1,357	
With a job but not at work <sup>5</sup> .....	7,440	6,645	6,393	5,930	6,018	6,234	7,551	8,491	7,811	8,160	8,440	9,046	8,062	
Agricultural.....	5,709	4,909	4,412	3,790	3,895	3,983	5,487	6,447	6,259	6,170	6,948	6,975	5,970	
Worked 35 hours or more.....	1,335	1,351	1,418	1,415	1,467	1,505	1,594	1,611	2,028	1,475	1,695	1,739	1,613	
Worked 15-34 hours.....	215	239	268	370	308	348	306	343	356	295	328	246	292	
Worked 1-14 hours <sup>5</sup> .....	91	246	297	353	348	399	163	88	170	223	158	88	187	
With a job but not at work <sup>5</sup> .....														
	Males													
	(4)	(4)	(4)	(4)	(4)	45,644	45,934	45,978	46,155	47,132	47,000	46,718	45,614	
Total labor force <sup>4</sup> .....	43,508	43,182	43,379	42,894	43,093	43,535	44,019	44,268	44,726	45,818	45,708	45,429	44,316	
Civilian labor force.....	950	1,028	1,277	1,594	1,659	1,450	1,309	1,172	1,482	1,664	2,126	2,300	2,130	
Unemployment.....	42,558	42,154	42,102	41,300	41,433	42,076	42,710	43,096	43,244	44,154	43,582	43,229	42,186	
Employment.....	36,596	36,349	36,463	35,980	36,072	36,585	36,854	36,807	36,877	37,455	36,665	36,216	35,597	
Nonagricultural.....	32,184	31,420	31,346	30,294	31,054	31,308	31,175	30,826	31,103	31,800	31,003	30,522	29,860	
Worked 35 hours or more.....	2,457	3,029	2,877	3,355	2,947	3,217	3,447	3,823	3,273	2,908	12,762	2,605	2,829	
Worked 15-34 hours.....	893	897	975	964	961	996	960	800	817	654	732	756	874	
Worked 1-14 hours <sup>5</sup> .....	1,062	1,063	1,265	1,357	1,110	1,052	852	1,038	1,063	2,494	4,207	1,332	1,034	
With a job but not at work <sup>5</sup> .....	5,962	5,805	5,639	5,320	5,362	5,491	6,156	6,589	6,367	6,690	6,977	7,013	6,569	
Agricultural.....	5,107	4,583	4,226	3,644	3,724	3,751	4,982	5,905	4,875	5,573	6,789	6,031	5,339	
Worked 35 hours or more.....	619	859	939	1,077	1,066	1,134	842	756	1,131	764	899	743	895	
Worked 15-34 hours.....	156	165	220	300	253	298	200	146	219	181	162	162	186	
Worked 1-14 hours <sup>5</sup> .....	80	198	255	298	319	338	133	82	143	183	126	78	170	
With a job but not at work <sup>5</sup> .....														
	Females													
	(4)	(4)	(4)	(4)	(4)	19,030	19,519	19,460	18,865	19,072	18,742	19,459	18,494	
Total labor force <sup>4</sup> .....	19,294	18,607	18,946	18,419	18,421	19,003	19,498	19,436	18,841	19,049	18,719	19,437	18,472	
Civilian labor force.....	659	716	870	813	944	770	531	708	859	836	1,087	1,184	927	
Unemployment.....	18,635	17,891	18,077	17,605	17,477	18,232	18,967	18,728	17,982	18,213	17,632	18,253	17,545	
Employment.....	17,157	17,051	17,322	16,996	16,921	17,400	17,167	16,868	16,538	16,752	16,169	16,230	16,072	
Nonagricultural.....	12,871	12,576	12,707	12,627	12,451	12,869	12,371	11,894	6,939	12,035	6,167	11,594	12,173	
Worked 35 hours or more.....	2,474	2,622	2,599	2,451	2,614	2,785	2,970	3,200	2,554	2,079	6,439	2,545	2,320	
Worked 15-34 hours.....	1,178	1,268	1,336	1,232	1,290	1,321	1,351	1,199	1,167	891	918	1,087	1,073	
Worked 1-14 hours <sup>5</sup> .....	635	564	680	665	596	515	473	473	878	1,732	2,645	991	503	
With a job but not at work <sup>5</sup> .....	1,478	840	754	610	656	743	1,395	1,062	1,444	1,461	1,463	2,033	1,473	
Agricultural.....	692	226	186	146	171	252	305	942	354	597	559	944	631	
Worked 35 hours or more.....	716	492	479	358	401	371	732	853	897	711	796	966	718	
Worked 15-34 hours.....	59	74	48	70	55	80	106	99	137	114	76	84	106	
Worked 1-14 hours <sup>5</sup> .....	11	48	42	55	29	61	30	6	27	40	32	10	17	
With a job but not at work <sup>5</sup> .....														

<sup>1</sup> Estimates are subject to sampling variation which may be large in cases where the quantities shown are relatively small. Therefore, the smaller estimates should be used with caution. All data exclude persons in institutions. Because of rounding, the individual figures do not necessarily add to group totals.

<sup>2</sup> Census survey week contains legal holiday.

<sup>3</sup> Total labor force consists of the civilian labor force and the Armed Forces.

<sup>4</sup> Beginning with January 1951, data on net strength of the Armed Forces and total labor force are not available.

<sup>5</sup> Excludes persons engaged only in incidental unpaid family work (less than 15 hours); these persons are classified as not in the labor force.

<sup>6</sup> Includes persons who had a job or business, but who did not work during the census week because of illness, bad weather, vacation, labor dispute or because of temporary lay-off with definite instructions to return to work within 30 days of lay-off. Does not include unpaid family workers.

Source: U. S. Department of Commerce, Bureau of the Census.



TABLE A-2: Employees in Nonagricultural Establishments, by Industry Division and Group<sup>1</sup>

Industry group and industry	1951					1950										Annual average	
	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	1950	1949		
Total employees.....	46,066	45,975	45,856	45,350	45,948	46,595	45,873	45,898	45,684	45,090	44,096	43,945	43,311	44,124	43,006		
Mining.....	904	908	994	880	922	937	928	929	940	950	922	946	940	904	852		
Metal.....	103.0	104.5	105.5	104.9	105.2	104.4	102.6	101.5	102.8	102.8	103.3	101.5	99.9	101.0	100.1		
Iron.....	36.8	36.4	36.5	36.2	35.9	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	33.7		
Copper.....	29.1	29.4	29.3	29.3	29.3	29.0	28.4	28.1	28.1	28.2	28.4	28.0	27.9	28.1	27.3		
Lead and zinc.....	20.6	21.6	21.6	21.4	21.0	20.3	19.9	20.5	20.0	20.0	20.5	20.0	19.2	19.7	20.6		
Anthracite.....	67.7	72.2	72.8	72.7	73.0	74.3	74.4	74.0	73.0	73.3	73.6	73.3	76.1	75.1	77.3		
Bituminous coal.....	374.0	382.2	397.3	402.3	402.8	404.8	404.3	405.8	407.0	407.8	382.1	410.4	413.1	375.6	396.0		
Crude petroleum and natural gas production.....	230.3	230.0	231.5	233.3	236.7	234.9	234.9	235.5	238.6	261.2	261.9	258.9	253.9	253.3	259.0		
Nonmetallic mining and quarrying.....	106.0	102.8	99.0	97.1	98.0	98.3	101.9	102.1	102.7	103.4	101.3	100.0	97.3	97.4	96.4		
Contract construction.....	2,592	2,479	2,330	2,228	2,281	2,403	2,571	2,621	2,628	2,629	2,532	2,414	2,245	2,318	2,156		
Nonbuilding construction.....	459	396	371	383	428	505	534	540	548	519	493	442	447	428			
Highway and street.....	181.2	149.7	134.8	141.1	164.0	208.6	228.5	224.3	240.0	228.8	213.5	182.4	182.0	178.1			
Other nonbuilding construction.....	277.6	246.4	236.3	242.1	263.8	296.3	305.8	305.8	307.5	290.4	279.3	260.0	264.1	250.3			
Building construction.....	2,019	1,934	1,857	1,898	1,978	2,066	2,067	2,066	2,081	2,013	1,921	1,803	1,871	1,727			
General contractors.....	851	805	763	798	839	892	905	905	905	870	827	796	797	753			
Special-trade contractors.....	1,168	1,129	1,094	1,100	1,138	1,174	1,162	1,160	1,176	1,143	1,094	1,037	1,074	974			
Plumbing and heating.....	269.7	264.3	262.6	267.4	269.4	264.0	266.6	263.7	265.7	278.7	267.4	257.1	270.6	248.8			
Painting and decorating.....	136.8	148.5	139.2	125.0	132.8	147.4	158.1	157.2	158.3	149.8	140.0	128.7	132.5	124.4			
Electrical work.....	139.0	137.9	139.0	138.7	140.0	138.7	137.6	133.8	133.7	131.0	127.6	122.0	128.6	128.1			
Other special-trade contractors.....	582.5	558.0	541.7	550.4	572.4	583.9	600.1	593.0	597.9	583.5	558.6	530.8	541.7	479.0			
Manufacturing.....	15,808	15,949	16,031	15,978	15,794	16,799	16,765	16,827	15,995	15,490	14,777	14,669	14,413	14,854	14,146		
Durable goods <sup>2</sup> .....	8,938	8,985	8,978	8,877	8,742	8,717	8,664	8,618	8,422	8,234	7,978	7,964	7,800	8,008	7,465		
Nondurable goods <sup>2</sup> .....	6,868	6,957	7,056	7,101	7,042	7,072	7,101	7,209	7,262	7,156	6,799	6,702	6,604	6,876	6,681		
Ordinance and accessories.....	37.8	37.6	35.6	33.3	30.8	29.7	28.0	27.7	26.6	25.0	23.7	23.2	23.2	24.7	24.5		
Food and kindred products.....	1,482	1,498	1,476	1,478	1,499	1,531	1,576	1,643	1,739	1,718	1,617	1,519	1,461	1,542	1,523		
Meat products.....	290.9	294.7	296.4	312.8	313.2	303.7	300.8	295.7	296.6	295.8	292.6	286.3	286.3	285.6			
Dairy products.....	144.0	139.5	135.2	134.4	137.1	139.6	142.8	149.6	156.4	158.7	158.5	148.7	144.5	144.2			
Canning and preserving.....	154.4	150.4	152.5	157.0	168.5	197.4	233.2	253.1	259.1	250.0	250.0	252.3	252.3	252.3			
Grain-mill products.....	126.1	126.8	127.4	127.5	128.6	125.2	128.4	129.4	128.6	128.5	124.3	121.2	123.9	120.6			
Bakery products.....	288.1	286.7	285.7	286.3	288.1	290.9	292.2	290.4	287.7	289.3	286.7	286.7	286.7	281.7			
Sugars.....	29.1	29.4	29.1	31.8	44.8	51.8	50.7	34.5	33.5	30.6	29.4	28.9	34.5	32.7			
Confectionery and related products.....	91.7	96.1	96.4	100.6	105.1	110.2	114.2	110.5	102.1	90.0	90.4	88.6	96.5	96.9			
Beverages.....	210.4	213.8	211.7	212.2	212.1	213.4	217.7	220.0	240.1	234.2	224.8	216.3	216.3	211.4			
Miscellaneous food products.....	134.9	138.5	137.6	136.1	137.7	139.8	142.7	145.4	144.3	141.8	140.4	135.5	138.5	137.6			
Tobacco manufactures.....	82	83	85	87	88	90	91	96	96	88	82	82	83	88	94		
Cigarettes.....	25.6	25.7	25.8	25.9	26.1	26.3	26.2	27.1	26.6	26.1	25.4	25.5	25.5	25.9	26.6		
Cigars.....	41.1	42.0	42.3	41.2	42.3	43.3	43.0	41.7	40.7	38.9	39.5	36.7	41.2	44.5			
Tobacco and snuff.....	12.1	12.2	12.1	12.0	12.0	12.1	12.4	12.5	12.2	11.4	11.8	12.0	12.1	12.3	13.0		
Tobacco stemming and redrying.....	4.6	4.9	6.7	8.0	9.4	9.8	14.0	15.2	11.6	8.4	8.1	6.7	8.7	10.1			
Textile-mill products.....	1,286	1,313	1,322	1,365	1,352	1,382	1,388	1,337	1,347	1,316	1,250	1,264	1,282	1,297	1,224		
Yarn and thread mills.....	171.1	172.7	174.3	172.0	170.7	171.5	169.6	164.4	166.6	164.4	156.7	158.4	153.3	162.7	149.3		
Broad-woven fabric mills.....	601.4	599.7	606.1	633.0	633.9	637.5	638.7	637.4	625.9	601.5	610.4	602.9	614.1	581.9			
Knitting mills.....	250.0	255.7	256.2	252.0	254.0	253.9	256.0	253.0	246.9	228.4	230.9	231.6	242.5	231.4			
Dyeing and finishing textiles.....	57.6	93.9	94.6	95.5	93.3	93.3	93.6	92.6	89.2	84.9	84.6	84.6	84.6	84.6			
Carpets, rugs, other floor coverings.....	61.0	62.1	62.4	62.2	62.4	62.4	61.7	61.3	60.5	58.1	59.4	59.8	60.6	58.9			
Other textile-mill products.....	141.8	137.7	141.7	138.9	137.3	136.7	135.5	133.2	129.2	120.3	119.8	119.7	125.1	116.0			
Apparel and other finished textile products.....	1,119	1,167	1,220	1,237	1,190	1,184	1,175	1,221	1,218	1,208	1,097	1,063	1,091	1,159	1,136		
Men's and boys' suits and coats.....	152.5	155.9	158.4	152.7	151.9	151.2	152.4	151.4	152.4	140.6	148.5	143.2	148.3	141.5			
Men's and boys' furnishings and work clothing.....	290.6	282.5	277.7	269.6	269.5	271.8	273.3	272.3	270.4	249.3	235.1	236.0	236.0	237.5			
Women's outerwear.....	299.8	340.0	352.7	374.1	329.9	308.4	331.9	340.0	340.0	290.1	281.3	285.2	320.3	328.6			
Women's, children's undergarments.....	105.5	107.7	107.4	103.6	106.6	110.9	113.2	111.1	105.9	95.8	98.9	101.3	105.4	98.9			
Millinery.....	30.4	35.3	36.3	34.3	31.4	18.4	22.8	23.4	23.7	20.2	17.8	16.9	22.0	22.3			
Children's outerwear.....	65.1	67.9	70.0	67.3	65.6	63.2	68.9	68.6	68.6	67.2	65.3	62.6	66.5	63.4			
Fur goods and miscellaneous apparel.....	93.3	93.9	94.4	88.7	92.2	97.4	101.2	90.0	96.2	89.6	88.6	85.4	80.6	88.2			
Other fabricated textile products.....	147.8	153.9	152.9	146.0	146.5	151.7	157.2	152.6	150.1	127.9	137.5	137.9	143.5	135.8			
Lumber and wood products (except furniture).....	816	814	796	800	804	817	828	849	853	845	812	803	794	792	736		
Logging camps and contractors.....	71.0	64.0	69.5	69.5	72.4	77.5	78.2	78.1	78.8	76.2	73.7	67.4	67.9	61.4			
Sawmills and planing mills.....	472.6	460.3	458.0	460.8	471.1	454.3	492.5	498.7	494.5	474.6	467.3	459.1	461.6	431.7			
Millwork, plywood, and prefabricated structural wood products.....	123.2	123.0	122.8	126.2	128.0	129.9	131.0	130.4	130.4	124.9	124.9	122.0	124.2	110.5			
Wooden containers.....	82.3	83.5	83.2	82.8	81.5	82.3	82.7	81.8	79.7	77.5	77.5	75.7	77.7	73.7			
Miscellaneous wood products.....	64.8	65.0	64.8	64.3	63.9	63.8	64.0	63.9	62.0	59.2	58.5	59.0	60.8	59.0			

See footnotes at end of table.



TABLE A-2: Employees in Nonagricultural Establishments, by Industry Division and Group<sup>1</sup>-Con.

	[In thousands]												Annual average		
Industry group and industry	1951												1950		
	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	1950	1949
<b>Manufacturing-Continued</b>															
Furniture and fixtures	354	367	374	373	370	374	376	378	376	367	350	349	348	357	315
Household furniture	257.4	264.9	265.1	262.9	266.5	270.5	270.9	269.0	262.1	249.8	248.8	248.5	248.5	255.5	220.0
Other furniture and fixtures	109.7	108.0	107.6	106.8	107.0	103.8	107.1	107.1	107.1	104.9	100.0	99.5	99.4	101.5	94.6
<b>Paper and allied products</b>	500	500	498	496	496	499	500	491	488	479	465	467	459	472	447
Pulp, paper, and paperboard mills	245.6	242.5	242.2	242.4	244.5	242.8	241.7	241.3	238.6	234.8	235.2	231.8	231.8	235.8	226.9
Paperboard containers and boxes	139.2	139.4	139.4	139.5	140.9	141.9	140.0	137.4	131.7	123.4	124.2	121.3	121.3	128.5	117.1
Other paper and allied products	115.6	116.3	114.7	114.3	113.8	114.0	109.5	109.2	109.1	106.4	106.7	105.7	105.7	107.7	103.1
<b>Printing, publishing, and allied industries</b>	758	758	759	758	758	765	750	754	746	741	739	739	736	743	727
Newspapers	296.3	297.1	296.7	295.5	298.9	298.9	292.9	293.1	292.7	293.1	294.0	293.9	293.9	291.3	282.5
Periodicals	52.7	52.8	52.8	53.0	53.1	53.1	52.8	51.5	51.5	51.7	51.4	51.4	51.4	52.1	53.4
Books	49.2	49.4	48.5	48.1	48.6	48.4	48.4	48.4	47.8	46.2	46.3	46.3	46.3	47.7	44.6
Commercial printing	204.9	205.1	206.2	207.3	207.4	205.3	204.8	200.1	198.5	198.1	199.0	197.9	197.9	200.8	197.1
Lithographing	41.1	41.1	40.9	40.8	42.0	42.4	42.1	41.1	40.5	40.0	40.0	40.0	40.0	40.7	41.1
Other printing and publishing	112.0	112.3	112.8	113.2	114.5	113.7	113.1	112.0	108.9	108.9	108.9	108.9	107.2	108.9	108.0
<b>Chemicals and allied products</b>	741	747	747	738	729	724	720	701	684	669	670	671	668	664	664
Industrial inorganic chemicals	81.4	80.0	79.4	78.5	77.6	77.1	76.6	69.3	68.3	70.3	72.9	71.4	71.5	68.4	68.4
Industrial organic chemicals	223.9	221.9	218.9	214.5	213.9	211.3	208.8	206.4	205.0	199.4	198.4	198.7	198.1	200.1	192.1
Drugs and medicines	104.9	104.5	103.7	101.1	101.3	100.2	99.0	98.4	96.7	95.9	94.2	93.1	93.1	95.8	92.3
Paints, pigments, and fillers	75.8	75.7	75.5	73.1	73.8	73.7	74.0	74.2	73.5	72.7	71.5	69.7	71.4	67.3	67.3
Fertilizers	40.1	42.5	39.9	37.5	32.9	32.1	32.0	32.7	29.6	28.3	30.2	30.2	34.0	34.3	34.3
Vegetable and animal oils and fats	51.6	53.3	53.1	57.6	59.2	60.9	61.9	54.3	48.7	48.8	48.2	50.0	54.5	56.1	56.1
Other chemicals and allied products	168.5	167.1	167.5	169.3	164.8	164.6	166.4	165.4	164.0	153.6	154.9	154.4	158.3	153.0	153.0
<b>Products of petroleum and coal</b>	260	259	258	256	254	254	252	251	250	241	239	238	245	245	245
Petroleum refining	206.6	205.5	204.1	202.3	201.6	201.5	199.3	198.1	196.0	188.0	187.8	186.2	184.8	188.7	188.7
Coke and byproducts	31.5	31.4	31.3	31.3	31.2	31.2	31.4	31.5	31.4	31.1	31.1	30.7	30.8	30.8	30.8
Other petroleum and coal products	30.9	30.7	30.1	30.1	31.2	30.8	31.3	31.2	32.5	30.5	30.1	28.6	29.5	27.1	27.1
<b>Rubber products</b>	272	271	272	273	273	272	272	269	265	258	249	247	241	252	234
Tires and inner tubes	112.4	112.7	114.6	113.1	116.1	117.2	115.7	115.2	112.8	111.3	110.8	108.1	108.1	110.6	106.6
Rubber footwear	30.3	30.6	30.8	30.1	29.1	28.5	28.0	26.9	25.7	24.1	24.2	23.2	25.6	26.4	26.4
Other rubber products	128.3	128.4	128.0	127.5	127.0	126.6	125.3	122.5	119.1	113.6	112.4	108.5	114.9	100.5	100.5
<b>Leather and leather products</b>	368	368	410	413	403	398	399	406	411	409	390	382	374	394	358
Leather	49.0	50.6	51.8	51.8	51.9	51.8	51.8	51.9	51.1	49.8	49.6	49.6	49.5	50.5	49.7
Footwear (except rubber)	298.0	296.0	261.7	256.8	251.7	248.4	253.4	259.5	260.4	252.8	247.2	240.4	252.3	248.0	231.0
Other leather products	95.9	96.3	96.2	94.5	94.0	96.8	101.5	99.6	97.5	88.1	84.9	83.8	91.1	87.2	87.2
<b>Stone, clay, and glass products</b>	561	559	555	547	548	548	550	544	532	532	512	511	501	512	494
Glass and glass products	148.8	147.2	143.9	143.8	144.6	145.6	144.1	133.8	137.9	130.8	134.4	131.7	133.5	122.6	122.6
Cement, hydraulic	42.4	42.2	41.9	42.0	42.4	42.7	43.1	42.4	43.3	41.7	42.6	42.2	42.1	41.8	41.8
Structural clay products	90.4	88.7	87.5	88.2	87.2	88.6	87.9	88.0	87.2	85.3	83.0	80.2	82.4	79.8	79.8
Pottery and related products	61.0	61.1	60.9	60.4	60.6	60.9	60.1	60.8	60.4	55.3	56.0	57.6	57.9	57.5	57.5
Concrete, gypsum, and plaster products	100.5	99.3	97.4	97.8	98.2	98.3	98.5	98.5	98.5	95.5	93.0	90.0	92.2	84.6	84.6
Other stone, clay, and glass products	116.1	116.0	115.6	115.3	114.3	113.7	112.8	110.5	107.4	103.5	101.4	99.4	103.5	97.1	97.1
<b>Primary metal industries</b>	1,345	1,341	1,339	1,331	1,327	1,318	1,301	1,289	1,276	1,256	1,222	1,216	1,190	1,220	1,101
Blast furnaces, steel works, and rolling mills	643.1	642.3	640.1	640.3	638.1	635.6	632.7	632.5	630.5	621.4	618.4	606.3	614.1	601.4	580.4
Iron and steel foundries	261.4	279.6	274.8	270.8	267.5	262.5	258.4	250.2	241.2	229.7	227.7	220.8	231.8	217.0	217.0
Primary smelting and refining of nonferrous metals	56.4	56.7	56.8	56.9	56.6	54.8	55.5	54.8	53.1	54.3	55.2	54.6	54.6	54.6	52.8
Rolling, drawing, and alloying of nonferrous metals	102.3	103.3	104.3	104.3	104.1	102.9	102.3	101.9	99.5	96.0	92.2	93.1	98.9	87.0	87.0
Nonferrous foundries	110.9	110.8	110.7	110.1	109.6	106.6	104.0	100.7	96.0	92.1	91.4	87.3	93.0	75.8	75.8
Other primary metal industries	147.2	146.1	144.4	144.1	141.8	135.9	137.6	135.2	135.0	126.7	126.7	126.1	129.6	118.4	118.4
<b>Fabricated metal products (except ordnance, machinery, and transportation equipment)</b>	1,021	1,030	1,028	1,022	1,016	1,018	1,017	1,013	996	972	929	923	894	933	859
Tin cans and other tinware	49.3	48.7	48.2	48.2	50.7	51.4	50.2	51.9	55.5	53.8	51.3	48.6	45.5	48.4	45.8
Cutlery, hand tools, and hardware	164.5	166.1	168.3	168.4	168.8	168.0	166.1	163.1	156.7	153.0	153.0	156.2	154.3	156.9	142.3
Heating apparatus (except electric) and plumbers' supplies	161.1	162.1	160.4	158.6	161.2	163.4	164.4	164.1	158.8	147.2	148.1	144.4	150.6	132.0	132.0
Fabricated structural metal products	226.6	224.9	222.7	220.2	219.8	219.3	216.7	209.0	210.3	201.3	198.0	192.4	201.4	198.5	198.5
Metal stamping, casting, and engraving	193.0	192.9	190.8	187.4	186.6	185.6	184.8	182.9	179.3	172.7	170.7	162.6	169.8	147.9	147.9
Other fabricated metal products	235.8	233.5	232.0	230.0	230.3	230.7	229.1	226.6	221.5	212.0	201.2	201.4	206.1	192.4	192.4
<b>Machinery (except electrical)</b>	1,801	1,827	1,876	1,857	1,828	1,492	1,459	1,426	1,368	1,274	1,243	1,241	1,228	1,352	1,311
Engines and turbines	88.4	85.8	83.8	83.2	81.3	78.8	72.9	70.2	74.8	72.8	73.5	73.6	72.6	72.6	72.6
Agricultural machinery and tractors	193.0	191.9	189.7	188.6	175.4	164.4	163.5	140.5	179.5	180.1	180.5	180.7	172.4	181.3	181.3
Construction and mining machinery	117.2	116.6	115.5	114.0	112.1	110.9	108.9	105.0	101.6	98.1	96.9	95.9	100.7	101.8	101.8
Metalworking machinery	296.2	292.9	277.2	268.1	259.4	251.5	242.9	233.5	222.1	212.0	212.0	207.2	220.2	208.7	208.7
Special industry machinery (except metalworking machinery)	195.8	194.4	192.8	188.5	183.4	180.6	178.2	174.6	168.5	165.3	163.4	162.7	167.6	171.8	171.8
General industrial machinery	224.9	222.3	219.0	216.4	212.2	207.1	203.0	197.6	191.7	185.0	182.8	181.3	188.5	186.4	186.4
Office and store machines and devices	105.3	102.4	101.4	100.0	99.2	97.9	95.9	94.4	90.1	85.0	83.8	84.0	90.9	90.6	90.6
Service industry and household machines	178.3	184.0	184.8	181.7	182.0	185.5	182.0	180.1	178.6	178.8	180.8	181.5	176.2	145.4	145.4
Special industry machinery (except metalworking machinery)	195.8	194.4	192.8	188.5	183.4	180.6	178.2	174.6	168.5	165.3	163.4	162.7	167.6	171.8	171.8
General industrial machinery	224.9	222.3	219.0	216.4	212.2	207.1	203.0	197.6	191.7	185.0	182.8	181.3	188.5	186.4	186.4
Office and store machines and devices	105.3	102.4	101.4	100.0	99.2	97.9	95.9	94.4	90.1	85.0	83.8	84.0	90.9	90.6	90.6
Service industry and household machines	178.3	184.0	184.8	181.7	182.0	185.5	182.0	180.1	178.6	178.8	180.8	181.5	176.2	145.4	145.4
Miscellaneous machinery parts	195.8	194.4	192.8	188.5	183.4	180.6	178.2	174.6	168.5	165.3	163.4	162.7	167.6	171.8	171.8

See footnotes at end of table.



TABLE A-2: Employees in Nonagricultural Establishments, by Industry Division and Group <sup>1</sup>-Con.

	[In thousands]														
Industry group and industry	1981						1990						Annual average		
	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	1990	1989
<b>Manufacturing—Continued</b>															
Electrical machinery	928	938	944	951	924	936	929	915	872	853	817	810	800	836	759
Electrical generating, transmission, distribution, and industrial apparatus	363.2	359.5	352.8	349.0	349.5	344.7	341.5	323.5	323.9	313.8	308.2	306.7	317.3	295.2	
Electrical equipment for vehicles	81.3	79.7	78.7	77.9	77.4	75.9	75.0	73.2	70.9	70.0	68.9	67.8	70.1	64.5	
Communication equipment	341.7	352.7	347.3	345.1	355.9	354.6	345.5	326.5	318.1	297.0	296.1	289.4	300.2	271.1	
Electrical appliances, lamps, and miscellaneous products	151.7	152.2	152.0	151.8	153.3	154.1	152.8	149.0	139.6	136.2	135.6	136.5	139.8	128.3	
<b>Transportation equipment</b>	1,492	1,515	1,528	1,493	1,425	1,404	1,390	1,394	1,365	1,347	1,297	1,305	1,299	1,273	1,212
Automobiles	911.6	938.4	925.8	897.6	865.7	887.7	922.7	913.3	907.9	883.7	863.4	852.4	839.4	798.0	
Aircraft and parts	413.2	398.1	382.7	354.2	339.1	323.4	305.1	284.0	272.5	259.2	256.4	253.9	273.4	255.6	
Aircraft engines and parts	279.5	270.1	258.2	256.7	228.2	217.5	205.0	195.8	183.7	172.8	170.5	169.0	184.2	160.7	
Aircraft propellers and parts	80.6	78.6	74.6	70.4	66.6	63.4	60.1	52.5	44.1	42.8	42.1	40.7	54.5	51.8	
Other aircraft parts and equipment	10.2	9.5	9.4	9.3	9.1	8.9	8.5	8.2	7.5	7.7	7.8	7.9	8.1	7.9	
Ship and boat building and repairing	108.7	109.8	108.9	96.5	91.9	88.9	88.6	89.1	91.7	81.2	80.9	80.0	84.4	100.3	
Ship building and repairing	94.1	95.4	94.4	82.4	77.8	76.5	73.8	73.8	78.4	67.4	66.4	66.2	71.4	86.2	
Boat building and repairing	14.6	14.4	14.5	14.1	14.1	13.4	13.3	13.3	13.3	13.8	14.5	13.8	13.0	12.1	
Railroad equipment	69.7	68.6	62.2	66.3	66.1	65.9	64.3	63.0	61.8	61.5	63.5	61.6	62.2	78.1	
Other transportation equipment	11.9	13.2	13.2	12.3	13.1	13.6	13.7	13.4	12.9	11.6	11.1	10.7	11.4	10.9	
<b>Instruments and related products</b>	295	295	291	286	280	280	277	272	268	252	242	243	238	259	238
Ophthalmic goods	28.1	27.8	27.5	27.2	26.9	26.7	26.2	25.6	25.6	24.8	24.8	24.8	24.8	25.4	26.8
Photographic apparatus	58.2	57.8	57.0	55.6	55.5	55.1	54.5	53.9	52.8	51.0	50.1	49.1	51.3	52.6	
Watches and clocks	34.5	34.2	34.0	33.3	33.9	33.7	32.8	31.5	28.0	27.8	28.1	28.0	30.1	31.4	
Professional and scientific instruments	174.0	170.7	167.4	164.1	154.0	161.1	158.1	153.6	146.0	138.1	139.8	136.5	143.4	127.1	
<b>Miscellaneous manufacturing industries</b>	487	501	508	504	489	500	508	510	493	471	430	439	434	459	436
Jewelry, silverware, and plated ware	55.3	56.8	58.2	57.3	57.5	58.2	58.2	57.2	55.4	51.1	52.8	52.7	54.8	55.4	
Toys and sporting goods	79.1	78.5	78.1	71.5	73.8	82.0	84.5	81.3	78.9	71.5	72.6	70.3	72.3	68.7	
Costume jewelry, buttons, notions	60.7	64.2	65.1	62.0	61.5	64.3	65.7	63.7	61.1	52.1	52.1	51.4	58.2	57.7	
Other miscellaneous manufacturing industries	305.4	308.2	304.5	298.3	305.2	303.1	301.7	290.8	276.0	254.8	261.3	260.0	272.3	243.8	
<b>Transportation and public utilities</b>	4,134	4,129	4,110	4,092	4,072	4,193	4,133	4,139	4,139	4,130	4,085	4,093	3,983	4,010	3,970
Transportation	2,907	2,908	2,891	2,895	2,898	2,908	2,911	2,912	2,913	2,909	2,830	2,813	2,685	2,801	2,756
Interstate railroads	1,462	1,449	1,429	1,428	1,400	1,465	1,462	1,458	1,441	1,414	1,407	1,396	1,390	1,367	
Class I railroads	1,296	1,273	1,253	1,253	1,277	1,292	1,291	1,283	1,272	1,246	1,240	1,135	1,220	1,191	
Local railroads and bus lines	144	144	144	145	145	145	145	146	146	148	147	149	148	158	
Trucking and warehousing	624	626	624	616	622	617	621	621	614	589	577	562	584	548	
Other transportation and services	678	672	669	669	681	684	684	688	680	680	682	678	679	684	
Air transportation (common carrier)	78.5	77.3	76.1	75.1	74.6	74.2	74.4	74.7	74.5	75.7	74.6	74.4	74.4	74.7	
Communication	682	679	673	671	668	670	664	670	671	671	667	662	659	663	656
Telephone	630.1	625.9	622.6	618.4	618.4	620.8	614.8	620.9	621.6	622.9	619.5	614.6	610.7	614.8	632.2
Telegraph	545	48.4	47.8	47.9	48.3	48.6	48.0	47.9	48.0	47.2	46.7	46.7	46.9	47.2	62.5
Other public utilities	545	544	545	546	547	548	550	555	558	556	548	541	546	537	
Gas and electric utilities	519.2	519.1	519.9	521.0	522.2	523.5	525.1	529.5	531.7	530.4	522.3	515.8	520.6	512.0	
Electric light and power utilities	231.4	231.3	232.3	232.0	232.5	233.2	234.0	236.6	238.4	238.4	235.2	232.5	234.0	233.5	
Gas utilities	115.6	115.6	115.8	116.4	117.2	117.6	118.1	118.6	118.0	117.6	115.5	113.1	114.9		
Electric light and gas utilities combined	172.2	172.2	171.8	172.6	172.5	172.7	173.0	174.3	175.1	174.4	171.6	170.2	171.6		
Local utilities	25.4	24.6	24.7	24.8	24.7	24.8	24.7	24.8	25.4	25.0	25.7	25.6	25.3	24.8	
<b>Trade</b>	8,801	8,819	8,707	8,554	8,599	8,443	8,586	8,759	8,841	8,874	8,930	8,911	8,938	8,934	8,958
Wholesale trade	2,571	2,576	2,587	2,593	2,587	2,618	2,618	2,625	2,605	2,582	2,528	2,502	2,479	2,544	2,522
Retail trade	7,030	7,037	7,120	6,961	7,005	7,827	7,278	7,127	7,036	6,892	6,862	6,909	6,847	6,980	6,916
General merchandise stores	1,430	1,444	1,510	1,431	1,459	2,052	1,654	1,539	1,474	1,387	1,372	1,411	1,412	1,493	1,480
Food and liquor stores	1,232	1,261	1,264	1,257	1,244	1,294	1,242	1,219	1,210	1,200	1,203	1,205	1,204	1,209	1,198
Automotive and accessories dealers	738	738	735	735	743	753	746	741	743	749	746	753	714	728	676
Apparel and accessories stores	549	543	573	515	523	642	565	555	540	491	501	536	533	536	524
Other retail trade	3,061	3,051	3,038	3,023	3,036	3,116	3,071	3,073	3,069	3,065	3,040	3,024	2,984	3,014	3,008
See footnote at end of table.															

See footnotes at end of table.



TABLE A-2: Employees in Nonagricultural Establishments, by Industry Division and Group <sup>1</sup>-Con.

[In thousands]

Industry group and industry	1951					1950										Annual average	
	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	1950	1949		
<b>Finance.....</b>	<b>1,877</b>	<b>1,906</b>	<b>1,854</b>	<b>1,839</b>	<b>1,831</b>	<b>1,839</b>	<b>1,890</b>	<b>1,891</b>	<b>1,827</b>	<b>1,837</b>	<b>1,831</b>	<b>1,827</b>	<b>1,813</b>	<b>1,813</b>	<b>1,813</b>	<b>1,789</b>	
Banks and trust companies.....	451	449	446	441	439	439	438	433	433	432	432	427	421	427	416		
Security dealers and exchanges.....	63.9	63.8	63.4	62.0	61.3	61.1	60.8	60.9	61.4	61.3	61.3	60.0	59.2	59.0	58.5		
Insurance carriers and agents.....	661	661	657	653	655	651	651	654	658	652	646	646	640	646	619		
Other finance agencies and real estate.....	690	690	673	675	673	672	676	679	683	686	694	692	680	672			
<b>Service.....</b>	<b>4,787</b>	<b>4,744</b>	<b>4,653</b>	<b>4,637</b>	<b>4,668</b>	<b>4,694</b>	<b>4,723</b>	<b>4,737</b>	<b>4,816</b>	<b>4,827</b>	<b>4,841</b>	<b>4,826</b>	<b>4,790</b>	<b>4,781</b>	<b>4,739</b>		
Hotels and lodging places.....	446	436	432	429	430	433	441	475	512	512	482	482	451	456	464		
Laundries.....	352.8	351.5	350.9	351.6	353.1	355.5	357.5	358.6	363.4	362.1	363.7	353.5	352.2				
Cleaning and dyeing plants.....	152.9	150.2	145.1	145.8	146.8	148.2	151.1	150.0	147.1	151.6	155.9	150.1	147.5	146.9			
Motion pictures.....	249	243	240	242	243	243	244	246	244	245	249	236	241	237			
<b>Government.....</b>	<b>6,377</b>	<b>6,392</b>	<b>6,317</b>	<b>6,323</b>	<b>6,368</b>	<b>6,378</b>	<b>6,337</b>	<b>6,039</b>	<b>6,004</b>	<b>5,793</b>	<b>5,741</b>	<b>5,838</b>	<b>5,900</b>	<b>5,910</b>	<b>5,811</b>		
Federal <sup>2</sup> .....	2,244	2,201	2,146	2,085	2,027	2,333	1,980	1,945	1,916	1,841	1,820	1,851	1,890	1,910	1,900		
State and local <sup>3</sup> .....	4,133	4,091	4,071	4,037	4,061	4,043	4,057	4,091	4,088	3,952	3,921	3,987	4,010	4,000	3,911		

<sup>1</sup> The Bureau of Labor Statistics' series of employment in nonagricultural establishments are based upon reports submitted by cooperating establishments and, therefore, differ from employment information obtained by household interviews, such as the Monthly Report on the Labor Force (table A-1), in several important respects. The Bureau of Labor Statistics' data cover all full- and part-time employees in private nonagricultural establishments who worked during, or received pay for, the pay period ending nearest the 15th of the month; in Federal establishments during the pay period ending just before the first of the month; and in State and local government during the pay period ending on or just before the last of the month, while the Monthly Report on the Labor Force data relate to the calendar week which contains the 8th day of the month. Proprietors, self-employed persons, domestic servants, and personnel of the Armed Forces are excluded from the BLS but not the MRLF series. These employment series have been adjusted to bench-mark levels indicated by social insurance agency data through 1947. Revised data in all except the first four columns will be identified by asterisks the first month they are published.

<sup>2</sup> Includes: ordnance and accessories; lumber and wood products (except furniture); furniture and fixtures; stone, clay, and glass products; primary

metal industries; fabricated metal products (except ordnance, machinery, and transportation equipment); machinery (except electrical); electrical machinery; transportation equipment; instruments and related products; and miscellaneous manufacturing industries.

<sup>3</sup> Includes: food and kindred products; tobacco manufactures; textile-mill products; apparel and other finished textile products; paper and allied products; printing, publishing, and allied industries; chemicals and allied products; products of petroleum and coal; rubber products; and leather and leather products.

<sup>4</sup> Data by region, from January 1940, are available upon request to the Bureau of Labor Statistics.

<sup>5</sup> Fourth class postmasters (who are considered to be nominal employees) are excluded here but are included in Table A-5.

<sup>6</sup> Excludes as nominal employees paid volunteer firemen, employees hired to conduct elections, and elected officials of small local governments.

All series may be obtained upon request to the Bureau of Labor Statistics. Requests should specify which industry series are desired.



TABLE A-3: Production Workers in Mining and Manufacturing Industries<sup>1</sup>

(In thousands)

Industry group and industry	1951					1950										Annual average	
	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	1950	1949		
<b>Mining</b>																	
Metal		92.7	90.7	90.6	90.2	92.7	90.9	89.7	91.1	90.8	91.4	90.0	88.5	89.4	89.0		
Iron		33.1	32.6	32.7	32.6	32.4	32.6	32.8	33.4	33.4	32.0	32.4	31.8	31.9	30.4		
Copper		23.5	23.8	23.7	23.7	23.5	24.9	24.6	24.8	24.6	24.9	24.7	24.8	24.8	24.3		
Lead and zinc		18.1	18.9	19.0	18.7	18.4	17.7	17.4	17.9	17.5	18.0	17.4	16.7	17.2	18.1		
Anthracite		63.6	67.9	68.4	68.4	68.5	69.8	69.9	70.5	70.8	69.2	70.8	71.6	70.8	72.8		
Bituminous coal		358.0	372.3	377.0	377.4	380.6	379.6	381.5	381.8	383.0	357.6	385.0	387.9	381.0	373.4		
Crude petroleum and natural gas production																	
Petroleum and natural gas production (except contract services)		124.5	123.5	123.2	122.7	124.7	124.1	126.0	128.3	130.3	129.7	127.7	124.2	125.7	127.1		
Nonmetallic mining and quarrying		90.1	86.5	84.7	85.2	86.0	89.4	86.0	90.2	90.6	88.8	87.6	83.0	85.2	83.7		
<b>Manufacturing</b>	<b>12,939</b>	<b>13,104</b>	<b>13,205</b>	<b>13,188</b>	<b>13,918</b>	<b>13,036</b>	<b>13,044</b>	<b>13,135</b>	<b>13,016</b>	<b>13,002</b>	<b>13,181</b>	<b>13,086</b>	<b>11,941</b>	<b>12,964</b>	<b>11,997</b>		
Durable goods <sup>2</sup>	7,387	7,438	7,440	7,371	7,256	7,254	7,210	7,186	7,013	6,900	6,997	6,896	6,456	6,622	6,606		
Non-durable goods <sup>2</sup>	5,552	5,666	5,765	5,815	6,662	5,802	5,834	6,007	6,003	6,092	6,184	6,190	5,485	6,342	5,391		
Ordinance and accessories	30.4	30.3	28.7	27.0	25.0	23.8	23.3	22.3	21.6	20.1	19.0	18.9	18.6	19.8	20.2		
<b>Food and kindred products</b>	<b>1,097</b>	<b>1,087</b>	<b>1,099</b>	<b>1,120</b>	<b>1,155</b>	<b>1,196</b>	<b>1,260</b>	<b>1,330</b>	<b>1,331</b>	<b>1,231</b>	<b>1,141</b>	<b>1,090</b>	<b>1,168</b>	<b>1,172</b>			
Meat products	1,087	1,087	1,099	1,120	1,155	1,196	1,260	1,330	1,331	1,231	1,141	1,090	1,168	1,172			
Dairy products	103.1	99.1	95.2	94.4	96.9	100.4	101.9	107.4	113.7	118.1	114.4	108.2	104.4	107.9			
Canning and preserving	128.8	123.3	127.2	131.6	142.7	171.4	226.3	324.2	302.1	222.8	150.6	126.8	178.9	190.8			
Grain-mill products	93.6	95.0	95.4	95.4	93.1	93.2	98.8	98.1	97.7	95.9	94.6	92.2	94.2	95.3			
Bakery products	190.0	190.1	188.3	187.8	190.4	193.4	196.3	194.3	192.2	193.9	190.7	192.6	191.5	191.2			
Sugar	24.1	24.4	24.3	27.0	39.9	46.5	45.8	29.5	28.6	28.0	24.7	24.4	29.9	28.4			
Confectionery and related products	75.0	73.6	82.6	83.8	89.4	93.5	97.2	83.4	83.4	73.6	73.8	72.7	83.1	83.0			
Beverages	143.9	146.9	145.4	146.8	146.1	148.8	149.4	159.4	169.3	163.5	156.5	146.4	149.1	150.6			
Miscellaneous food products	99.5	103.2	102.4	101.7	102.6	104.4	106.6	108.5	106.1	104.1	103.3	99.4	102.6	103.8			
<b>Tobacco manufactures</b>	<b>75</b>	<b>76</b>	<b>78</b>	<b>80</b>	<b>80</b>	<b>83</b>	<b>84</b>	<b>89</b>	<b>89</b>	<b>82</b>	<b>75</b>	<b>75</b>	<b>76</b>	<b>81</b>	<b>87</b>		
Cigarettes	23.1	23.3	23.3	23.3	23.5	23.7	23.7	24.5	23.1	23.4	22.8	22.8	23.3	24.1			
Cigars	38.9	39.9	40.1	39.0	40.2	41.2	41.0	39.5	38.6	36.8	37.3	37.6	39.1	42.4			
Tobacco and snuff	10.5	10.7	10.8	10.6	10.5	10.5	11.0	11.1	10.7	10.4	10.5	10.6	10.8	11.5			
Tobacco stemming and redrying	3.8	4.2	4.9	7.4	8.3	8.3	13.0	14.2	10.4	4.6	4.2	4.9	7.8	9.0			
<b>Textile-mill products</b>	<b>1,100</b>	<b>1,217</b>	<b>1,227</b>	<b>1,299</b>	<b>1,257</b>	<b>1,258</b>	<b>1,262</b>	<b>1,264</b>	<b>1,255</b>	<b>1,224</b>	<b>1,174</b>	<b>1,162</b>	<b>1,206</b>	<b>1,136</b>			
Yarn and thread mills	160.2	161.8	161.6	161.5	159.9	160.9	160.7	159.2	154.4	146.5	148.4	143.0	151.8	140.3			
Broad-woven fabric mills	550.2	568.6	604.3	602.0	603.5	606.3	607.4	606.2	594.6	570.8	579.9	572.8	585.6	551.4			
Knitting mills	230.5	236.0	235.9	232.1	233.9	233.9	236.5	233.3	227.1	209.4	211.7	212.8	223.6	215.4			
Dyeing and finishing textiles	77.4	83.9	84.4	83.3	83.3	83.4	83.7	82.8	79.6	75.4	76.7	76.7	80.1	78.9			
Carpets, rugs, other floor coverings	52.9	54.2	54.6	54.5	54.9	55.0	54.5	54.1	53.3	51.0	52.7	52.4	53.3	51.2			
Other textile-mill products	126.0	122.7	126.5	123.7	122.7	122.3	121.3	119.3	115.4	106.6	106.5	104.4	111.9	102.8			
<b>Apparel and other finished textile products</b>	<b>1,000</b>	<b>1,047</b>	<b>1,107</b>	<b>1,115</b>	<b>1,070</b>	<b>1,064</b>	<b>1,056</b>	<b>1,100</b>	<b>1,099</b>	<b>1,099</b>	<b>981</b>	<b>976</b>	<b>976</b>	<b>1,042</b>	<b>1,022</b>		
Men's and boys' suits and coats	138.5	141.4	141.1	138.4	137.4	137.0	138.2	137.7	138.2	128.9	134.6	126.0	134.3	128.1			
Men's and boys' furnishings and work clothing	261.5	263.0	258.8	251.0	251.2	253.3	254.2	253.8	252.0	231.9	237.8	238.6	245.3	236.8			
Women's outerwear	263.6	305.0	317.4	303.3	296.2	274.8	297.0	305.3	306.6	265.6	247.9	253.5	286.8	294.3			
Women's, children's undergarments	95.0	97.2	97.0	93.1	96.1	100.5	102.5	100.4	95.9	85.8	88.6	91.1	95.2	89.4			
Millinery	75.0	22.8	23.7	21.7	18.9	15.9	20.1	20.7	20.9	17.6	15.3	16.7	19.4	19.4			
Children's outerwear	86.4	61.9	64.2	61.8	59.9	59.6	63.1	62.5	62.5	61.3	60.2	57.0	60.7	58.0			
Fur goods and miscellaneous apparel	83.6	84.6	82.6	78.9	80.3	83.3	89.0	87.5	85.1	75.9	77.2	74.4	78.4	76.5			
Other fabricated textile products	125.7	131.3	130.4	124.4	124.4	130.0	133.5	131.1	128.1	116.0	115.8	115.8	121.7	115.8			
<b>Lumber and wood products (except furniture)</b>	<b>783</b>	<b>751</b>	<b>731</b>	<b>736</b>	<b>759</b>	<b>754</b>	<b>773</b>	<b>785</b>	<b>790</b>	<b>783</b>	<b>750</b>	<b>741</b>	<b>723</b>	<b>730</b>	<b>676</b>		
Logging camps and contractors	67.0	60.0	65.4	64.9	67.9	73.0	73.8	73.6	74.4	71.4	69.4	62.9	63.5	67.6			
Sawmills and planing mills	441.4	427.6	427.8	429.4	440.0	452.3	461.5	467.8	464.6	443.9	436.8	429.8	431.1	401.3			
Millwork, plywood, and prefabricated structural wood products	107.6	107.3	107.1	110.3	112.4	113.8	114.8	114.4	113.7	109.1	108.5	106.2	108.5	95.7			
Wooden containers	76.1	77.4	77.3	76.9	73.8	76.9	77.1	76.1	74.1	72.1	66.9	72.2	69.9	72.2			
Miscellaneous wood products	58.5	58.6	58.4	57.9	57.4	57.4	57.7	57.6	55.9	53.1	53.5	54.0	54.8	53.1			
<b>Furniture and fixtures</b>	<b>306</b>	<b>318</b>	<b>320</b>	<b>324</b>	<b>321</b>	<b>326</b>	<b>327</b>	<b>329</b>	<b>327</b>	<b>319</b>	<b>303</b>	<b>303</b>	<b>302</b>	<b>311</b>	<b>272</b>		
Household furniture	227.8	236.0	235.4	233.7	238.4	241.5	241.9	240.2	234.2	221.8	222.3	221.4	227.9	194.8			
Office furniture and fixtures	90.6	90.0	88.5	87.6	87.1	85.7	86.9	86.9	85.2	80.7	80.4	81.2	82.0	77.6			

See footnotes at end of table.



TABLE A-3: Production Workers in Mining and Manufacturing Industries<sup>1</sup>—Continued

[In thousands]															
Industry group and industry	1950												Annual average		
	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	1950	1949
<b>Manufacturing—Continued</b>															
Paper and allied products.....	426	427	424	423	423	428	427	421	418	410	396	399	392	404	382
Pulp, paper, and paperboard mills.....	212.5	209.1	209.3	209.2	212.3	210.7	210.3	209.9	207.4	204.1	204.8	201.7	201.7	205.1	197.6
Paperboard containers and boxes.....	119.2	119.3	119.1	119.6	121.3	122.0	120.4	118.2	113.1	104.6	105.7	103.1	109.8	109.8	99.6
Other paper and allied products.....	95.4	95.6	94.5	94.5	94.5	94.5	94.3	90.5	90.2	89.9	87.5	88.9	86.9	88.8	85.2
Printing, publishing, and allied industries.....	509	509	511	510	518	515	514	510	504	499	490	500	498	503	495
Newspapers.....	150.8	150.0	149.6	148.9	152.4	150.3	149.7	151.1	149.6	149.6	150.1	149.3	149.3	148.6	141.2
Periodicals.....	35.3	35.5	35.2	34.6	35.0	35.0	35.1	35.2	34.5	34.1	33.7	34.5	34.7	34.7	38.0
Books.....	36.0	36.3	36.1	35.8	36.7	36.6	36.6	37.2	36.4	34.6	35.3	35.1	35.7	35.7	36.4
Commercial printing.....	167.8	169.6	169.5	170.0	170.1	170.2	170.2	168.5	165.0	164.4	163.7	164.1	166.6	164.4	164.4
Lithographing.....	31.9	32.1	31.8	31.7	32.9	33.8	33.0	32.6	31.8	31.2	31.2	31.1	31.7	31.1	31.1
Other printing and publishing.....	87.0	87.4	88.0	88.6	89.6	89.9	89.6	89.2	87.0	86.2	85.4	84.1	83.6	85.3	85.3
Chemicals and allied products.....	529	536	538	532	526	524	521	523	506	491	479	482	485	496	455
Industrial inorganic chemicals.....	59.2	58.5	58.1	57.3	57.1	56.5	55.9	54.9	53.7	52.9	51.2	51.4	53.4	52.9	52.3
Industrial organic chemicals.....	168.2	166.7	163.3	162.8	161.9	160.2	159.1	157.7	154.8	151.5	150.0	147.8	151.8	145.8	145.8
Drugs and medicines.....	69.5	69.3	68.6	68.6	67.4	66.4	65.9	64.9	63.4	62.5	61.8	61.0	62.7	60.8	60.8
Paints, pigments, and fillers.....	49.7	49.6	49.5	47.5	48.3	48.2	48.7	48.6	48.6	47.7	46.9	45.5	46.9	45.5	45.5
Fertilizers.....	33.4	33.6	33.2	30.9	28.5	25.7	26.6	28.4	23.3	22.1	20.9	21.9	22.8	28.6	28.6
Vegetable and animal oil and fats.....	40.1	42.2	43.9	45.5	47.6	49.6	50.8	45.5	38.2	36.2	37.6	39.6	43.8	45.1	45.1
Other chemicals and allied products.....	116.3	116.5	115.4	115.1	114.7	114.0	113.8	113.5	113.8	113.8	108.1	108.7	107.6	110.3	108.4
Products of petroleum and coal.....	194	194	192	191	190	191	191	190	189	193	182	181	177	185	188
Petroleum refining.....	130.2	129.0	128.2	127.1	127.1	127.3	127.5	126.5	124.6	124.6	121.7	121.8	121.1	126.1	126.8
Coke and byproducts.....	18.6	18.5	18.4	18.5	18.4	18.4	18.6	18.7	18.7	18.5	18.5	18.1	18.1	18.1	18.9
Other petroleum and coal products.....	24.8	24.6	24.3	24.3	25.0	24.6	25.1	25.3	26.4	24.9	24.5	23.2	23.9	22.0	22.0
Rubber products.....	219	219	220	222	222	222	222	219	215	208	200	199	194	203	186
Tires and inner tubes.....	87.7	88.3	90.6	91.3	92.1	93.4	92.0	91.7	89.6	88.3	88.3	89.9	87.8	83.6	83.6
Rubber footwear.....	24.8	25.0	25.3	24.9	25.9	25.2	22.8	21.8	20.7	19.2	19.3	19.1	20.6	21.6	21.6
Other rubber products.....	106.3	106.8	106.3	105.8	105.7	105.0	104.1	101.0	98.0	92.8	92.0	88.8	94.3	80.9	80.9
Leather and leather products.....	329	334	371	374	364	359	360	367	372	370	351	343	335	355	347
Leather.....	44.3	45.9	47.0	47.3	47.3	47.3	47.2	46.7	47.2	46.6	44.9	45.0	44.9	45.9	45.9
Footwear (except rubber).....	225.5	237.4	238.9	234.2	229.1	225.8	230.3	234.7	237.3	229.8	224.3	217.5	229.4	228.2	228.2
Other leather products.....	84.4	87.9	87.6	82.8	82.9	86.9	89.7	87.9	85.8	76.6	73.7	72.8	73.7	73.8	73.8
Stone, clay, and glass products.....	486	484	480	473	473	474	477	471	438	429	440	441	432	441	416
Glass and glass products.....	132.2	130.4	127.5	127.5	127.7	128.9	127.0	127.0	121.7	114.4	118.3	115.0	117.8	117.8	106.8
Cement, hydraulic.....	36.3	36.2	35.9	35.9	36.3	36.7	37.0	36.5	37.1	35.6	35.6	36.0	36.0	36.0	36.0
Structural clay products.....	81.8	80.2	79.5	79.8	79.4	80.5	79.8	79.8	75.9	77.0	75.5	72.8	74.8	72.8	72.8
Pottery and related products.....	55.2	55.3	55.1	54.7	55.1	55.1	52.2	53.1	51.8	49.8	50.6	52.2	52.3	52.3	52.2
Concrete, gypsum, and plaster products.....	83.0	84.2	82.8	83.0	83.5	84.4	84.5	84.1	84.3	81.5	80.2	78.4	78.7	78.7	78.4
Other stone, clay, and glass products.....	93.0	93.1	92.2	91.8	91.6	91.1	90.0	88.0	84.9	81.7	80.0	78.3	81.9	75.6	75.6
Primary metal industries.....	1,161	1,159	1,158	1,153	1,149	1,142	1,126	1,117	1,105	1,086	1,054	1,030	1,026	1,033	940
Blast furnaces, steel works, and rolling mills.....	560.8	560.7	558.8	558.0	556.4	553.8	552.6	552.2	530.4	542.6	538.1	529.3	535.6	547.7	476.7
Iron and steel foundries.....	250.4	248.8	244.9	240.7	238.0	235.8	228.5	221.9	213.3	202.1	200.2	193.6	204.0	188.9	188.9
Primary smelting and refining of non-ferrous metals.....	47.2	47.3	47.3	47.2	47.0	45.4	46.3	45.8	45.8	45.1	45.0	45.5	45.4	45.4	43.3
Rolling, drawing, and alloying of non-ferrous metals.....	84.8	85.8	86.8	87.1	87.2	85.9	85.8	85.3	83.1	79.5	80.1	78.9	80.7	70.6	70.6
Nonferrous foundries.....	93.4	93.6	94.2	94.5	95.9	91.3	89.7	85.7	81.7	78.0	77.7	73.5	78.8	63.3	63.3
Other primary metal industries.....	122.5	122.2	120.8	120.5	119.3	116.9	116.7	114.4	111.7	106.8	108.0	105.1	108.4	97.1	97.1
Fabricated metal products (except ordnance, machinery, and transportation equipment).....	848	858	858	852	847	832	850	850	837	814	773	769	742	776	701
Tin cans and other tinware.....	43.0	42.6	42.1	44.2	43.4	44.2	45.9	49.8	50.2	45.5	43.1	40.1	42.8	39.9	39.9
Cutlery, hand tools, and hardware.....	140.2	141.0	143.7	144.0	143.7	142.9	141.4	138.3	132.4	129.1	132.6	130.7	132.7	118.4	118.4
Heating apparatus (except electric) and plumbers' supplies.....	132.8	133.9	132.0	129.9	133.2	135.3	137.1	137.1	131.9	120.4	121.9	118.6	123.9	106.0	106.0
Fabricated structural metal products.....	177.9	176.5	174.6	173.2	173.2	171.7	170.9	165.6	165.1	158.0	154.3	148.5	156.5	152.2	152.2
Metal stamping, coating, and engraving.....	106.3	105.9	104.5	101.2	101.6	100.9	100.7	130.1	155.8	149.9	148.1	140.5	146.9	128.1	128.1
Other fabricated metal products.....	198.0	197.1	195.4	193.7	194.6	195.2	194.3	187.5	178.1	170.0	169.0	163.6	173.0	160.0	160.0
Machinery (except electrical).....	1,245	1,234	1,228	1,215	1,192	1,163	1,133	1,104	1,060	1,032	1,033	1,022	1,040	1,001	940
Engines and turbines.....	66.7	65.7	64.0	63.7	61.9	60.3	58.0	52.1	58.6	54.7	55.5	54.5	54.5	54.5	52.5
Agricultural machinery and tractors.....	150.9	150.3	149.7	146.5	135.4	134.9	134.3	102.3	140.0	140.5	141.2	141.5	133.5	142.4	142.4
Construction and mining machinery.....	87.5	87.1	85.2	84.7	85.8	82.3	80.6	77.8	72.7	71.0	70.4	68.4	73.0	72.4	72.4
Metalworking machinery.....	226.9	223.2	218.4	211.3	204.4	197.2	186.7	180.9	170.0	161.5	162.6	158.3	160.0	157.9	157.9
Special-industry machinery (except metalworking machinery).....	149.8	148.6	147.3	145.9	140.5	137.6	135.8	132.2	127.4	124.3	124.6	122.7	126.6	131.1	131.1
General industrial machinery.....	162.8	160.9	158.4	157.7	154.5	150.1	146.7	141.9	136.9	131.3	130.1	128.8	134.3	132.3	132.3
Office and store machines and devices.....	86.9	86.2	85.4	84.2	83.2	81.9	80.3	79.0	73.6	74.3	74.3	74.2	73.5	75.6	75.6
Service-industry and household machines.....	142.5	148.3	148.7	146.8	147.9	151.2	147.6	146.1	145.3	145.5	147.9	148.7	143.2	115.4	115.4
Miscellaneous machinery and parts.....	160.2	157.8	156.1	153.0	151.1	148.0	144.1	137.9	133.4	128.1	126.0	124.1	130.0	120.4	120.4

See footnotes at end of table.



TABLE A-3: Production Workers in Mining and Manufacturing Industries<sup>1</sup>—Continued

Industry group and industry	[In thousands]														Annual average	
	1951						1950									
	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	1950	1949	
<b>Manufacturing—Continued</b>																
Electrical machinery.....	706	717	724	716	711	724	721	710	673	655	620	615	606	636	552	
Electrical generating, transmission, distribution, and industrial apparatus.....	267.3	262.8	258.3	255.8	257.2	254.4	251.7	237.1	236.5	226.6	221.9	221.8	229.7	210.7		
Electrical equipment for vehicles.....	60.0	64.6	63.9	63.4	63.0	61.8	60.9	59.5	57.2	56.0	55.1	58.7	56.0	49.0		
Communication equipment.....	260.4	273.0	269.5	267.8	278.5	278.4	272.2	254.6	247.8	227.5	227.1	219.9	237.0	191.8		
Electrical appliances, lamps, and miscellaneous products.....	123.2	123.7	124.4	124.0	128.4	126.2	125.0	121.6	113.1	109.8	110.7	110.6	113.3	100.8		
Transportation equipment.....	1,221	1,244	1,259	1,233	1,175	1,160	1,139	1,157	1,134	1,118	1,070	1,078	1,045	1,044	987	
Automobiles.....	770.7	790.6	790.6	767.3	767.3	760.4	794.8	787.8	780.9	786.7	764.7	736.3	713.6	643.5		
Aircraft and parts.....	307.8	298.2	287.6	254.2	251.9	229.3	224.5	209.4	199.0	188.1	185.6	185.2	201.8	188.5		
Aircraft.....	210.2	203.9	195.4	177.3	170.0	161.4	151.5	144.3	134.8	126.3	125.1	124.4	135.7	126.6		
Aircraft engines and parts.....	56.8	54.9	53.9	51.3	48.5	46.3	43.6	37.3	38.9	37.4	37.0	36.0	39.1	37.4		
Aircraft propellers and parts.....	7.3	6.6	6.5	6.2	6.1	5.9	5.7	5.5	4.9	5.1	5.2	5.2	5.4	5.3		
Other aircraft parts and equipment.....	33.5	32.8	31.8	29.4	27.3	25.7	23.7	22.1	20.4	19.3	19.3	19.5	21.5	19.2		
Ship and boat building and repairing.....	94.2	96.7	94.9	82.7	78.7	76.1	73.6	73.5	73.0	67.9	68.2	67.2	71.4	85.0		
Shipbuilding and repairing.....	13.0	12.8	12.8	12.3	12.4	11.7	11.5	11.5	11.5	11.8	12.7	12.0	11.2	10.0		
Boat building and repairing.....	55.2	54.1	48.5	52.1	51.9	51.7	50.4	49.3	48.2	47.7	45.8	47.4	47.9	61.0		
Railroad equipment.....	18.0	11.3	11.4	10.4	11.2	11.8	11.9	11.6	11.0	9.8	9.4	9.1	9.7	8.2		
Other transportation equipment.....																
Instruments and related products.....	221	221	218	215	211	211	209	205	199	187	178	180	176	186	177	
Ophthalmic goods.....	23.1	22.9	22.5	22.2	22.0	21.8	21.3	20.8	20.2	19.9	20.0	20.1	20.6	21.9		
Photographic apparatus.....	42.7	42.5	42.0	40.9	40.9	40.7	40.2	39.5	38.8	37.0	36.5	36.4	37.3	38.4		
Watches and clocks.....	29.1	28.9	28.8	28.3	28.9	28.8	28.0	27.0	23.4	23.4	23.7	23.6	25.5	26.6		
Professional and scientific instruments.....				119.6	119.2	117.8	115.3	111.6	105.3	98.1	100.2	97.0	103.0	90.1		
Miscellaneous manufacturing industries.....	410	423	429	427	413	424	432	436	418	399	338	367	362	385	354	
Jewelry, silverware, and plated ware.....	45.6	47.1	45.2	46.9	47.2	47.8	45.1	47.2	45.5	41.4	42.5	42.1	44.5	45.0		
Toys and sporting goods.....	68.2	69.2	67.0	62.3	66.7	73.0	73.3	72.2	69.8	62.5	63.6	61.5	64.2	59.8		
Costume jewelry, buttons, notions.....	51.9	55.1	55.9	52.8	52.1	54.9	56.2	54.4	52.0	43.9	44.1	43.0	49.2	48.3		
Other miscellaneous manufacturing industries.....	255.5	257.4	255.5	250.6	257.6	256.4	256.1	244.3	232.0	210.2	217.1	215.2	227.2	200.5		

<sup>1</sup> See footnote 1, table A-2. Production workers refer to all full- and part-time employees engaged in production and related processes, such as fabricating, processing, assembling, inspecting, storing, packing, shipping, maintenance and repair, and other activities closely associated with production operations.

<sup>2</sup> See footnote 2, table A-2.  
<sup>3</sup> See footnote 3, table A-2.

TABLE A-4: Indexes of Production-Worker Employment and Weekly Payrolls in Manufacturing Industries<sup>1</sup>

(1939 average=100)

Period	Employment	Weekly payroll	Period	Employment	Weekly payroll	Period	Employment	Weekly payroll
1939: Average.....	100.0	100.0	1947: Average.....	156.2	328.9	1950: September.....	158.9	463.2
1940: Average.....	107.5	113.6	1948: Average.....	155.2	331.4	October.....	160.3	413.8
1941: Average.....	132.8	164.9	1949: Average.....	141.6	323.3	November.....	159.2	414.6
1942: Average.....	186.9	241.5	1950: Average.....	149.7	371.7	December.....	156.4	426.0
1943: Average.....	183.3	331.1	1950: May.....	144.5	348.0	1951: January.....	158.9	424.0
1944: Average.....	175.3	343.7	June.....	147.3	362.7	February.....	161.0	430.0
1945: Average.....	157.0	293.5	July.....	148.3	367.5	March.....	161.2	435.5
1946: Average.....	147.8	271.7	August.....	155.3	394.4	April.....	160.0	433.3
						May.....	158.1	433.3

<sup>1</sup> See footnote 1, tables A-2 and A-3.



TABLE A-5: Federal Civilian Employment and Payrolls, by Branch and Agency Group

(In thousands)

Year and month	All branches	Executive <sup>1</sup>				Legislative	Judicial
		Total	Defense agencies <sup>2</sup>	Post Office Department <sup>3</sup>	All other agencies		
Employment—Total (including areas outside continental United States)							
1949: Average.....	2,100.5	2,089.2	859.2	511.1	678.6	7.7	3.6
1950: Average.....	2,080.5	2,068.6	837.5	521.4	709.7	8.1	3.8
1950: May.....	2,061.9	2,050.1	778.8	501.9	772.4	8.0	3.8
June.....	2,022.2	2,010.3	780.6	497.4	732.3	8.1	3.8
July.....	1,966.7	1,974.9	778.8	491.8	704.3	8.0	3.8
August.....	2,005.4	1,993.4	806.0	487.1	700.1	8.2	3.8
September.....	2,063.2	2,071.4	887.3	485.0	699.1	8.0	3.8
October.....	2,117.4	2,105.3	932.3	483.8	699.2	8.2	3.9
November.....	2,152.0	2,139.9	970.0	482.2	687.7	8.2	3.9
December.....	2,508.9	2,496.9	965.9	511.8	689.2	8.1	3.9
1951: January.....	2,204.3	2,192.3	1,017.3	486.5	688.5	8.1	3.9
February.....	2,265.5	2,253.5	1,076.8	487.1	689.6	8.1	3.9
March.....	2,332.3	2,320.2	1,133.4	489.0	697.8	8.2	3.9
April.....	2,385.5	2,373.5	1,160.0	488.4	705.1	8.1	3.9
May.....	2,432.6	2,420.5	1,212.1	492.1	716.3	8.2	3.9
Payrolls—Total (including areas outside continental United States)							
1949: Average.....	\$558,273	\$553,973	\$231,856	\$129,895	\$192,222	\$2,870	\$1,430
1950: Average.....	585,576	580,792	235,157	135,300	210,335	3,215	1,569
1950: May.....	577,615	573,026	229,044	130,361	222,621	3,246	1,643
June.....	573,659	568,889	221,123	131,202	216,564	3,214	1,556
July.....	551,510	546,806	212,778	129,803	204,225	3,208	1,498
August.....	618,049	613,138	239,451	130,361	223,326	3,277	1,634
September.....	601,454	596,537	261,527	128,764	206,249	3,200	1,717
October.....	613,359	608,511	267,622	129,665	211,224	3,250	1,598
November.....	621,491	616,609	273,633	129,869	213,107	3,292	1,590
December.....	672,724	667,988	275,681	185,732	206,675	3,207	1,559
1951: January.....	680,626	676,067	319,738	132,037	224,232	3,249	1,670
February.....	638,193	633,514	303,042	129,603	200,869	3,182	1,497
March.....	706,184	701,869	345,685	133,342	222,542	3,261	1,554
April.....	687,576	683,273	337,876	129,796	215,601	3,197	1,498
May.....	749,607	744,506	377,690	129,611	237,205	3,338	1,763
Employment—Continental United States							
1949: Average.....	1,921.9	1,910.7	761.4	509.1	640.2	7.7	3.5
1950: Average.....	1,930.5	1,918.7	732.5	519.4	687.0	8.1	3.7
1950: May.....	1,910.2	1,898.5	670.1	500.0	728.4	8.0	3.7
June.....	1,871.2	1,859.4	674.6	495.5	689.3	8.1	3.7
July.....	1,839.4	1,827.7	677.2	498.9	660.6	8.0	3.7
August.....	1,861.0	1,849.1	707.1	485.2	658.8	8.2	3.7
September.....	1,935.9	1,924.1	755.3	483.1	655.7	8.0	3.8
October.....	1,968.3	1,956.3	828.3	482.0	665.0	8.2	3.8
November.....	2,000.3	1,988.3	862.9	480.4	645.0	8.2	3.8
December.....	2,352.8	2,340.9	885.6	508.9	646.4	8.1	3.8
1951: January.....	2,047.4	2,035.5	905.1	484.7	645.7	8.1	3.8
February.....	2,105.0	2,093.1	961.0	485.3	646.8	8.1	3.8
March.....	2,169.3	2,157.3	1,015.5	487.1	654.7	8.2	3.8
April.....	2,219.9	2,208.0	1,069.7	486.6	661.7	8.1	3.8
May.....	2,263.9	2,251.9	1,089.8	490.3	671.8	8.2	3.8
Payrolls—Continental United States							
1949: Average.....	\$519,529	\$515,292	\$203,548	\$129,416	\$182,305	\$2,870	\$1,390
1950: Average.....	549,828	544,587	211,508	134,792	198,287	3,215	1,539
1950: May.....	541,195	536,351	156,249	129,841	210,261	3,246	1,598
June.....	536,052	531,325	156,621	130,704	203,700	3,214	1,513
July.....	516,924	512,261	191,199	129,316	191,856	3,206	1,457
August.....	575,867	570,867	235,435	129,870	210,562	3,277	1,588
September.....	563,900	559,029	237,332	128,278	193,419	3,200	1,671
October.....	576,155	571,357	243,233	129,178	198,946	3,250	1,548
November.....	583,978	579,140	248,667	129,413	201,060	3,292	1,546
December.....	634,578	629,856	259,324	185,044	194,518	3,207	1,485
1951: January.....	641,330	636,455	292,875	131,549	212,031	3,249	1,626
February.....	601,374	596,736	277,870	129,123	199,743	3,182	1,456
March.....	664,389	659,812	317,140	132,847	209,825	3,261	1,516
April.....	648,017	643,434	310,605	129,310	203,529	3,197	1,516
May.....	705,217	700,161	347,360	129,117	223,684	3,338	1,718

<sup>1</sup> See footnote 2, table A-7.<sup>2</sup> See footnote 3, table A-7.<sup>3</sup> Includes 4th Class Postmasters, excluded from table A-2.



TABLE A-7: Civilian Government Employment and Payrolls in Washington, D. C.,<sup>1</sup> by Branch and Agency Group

[In thousands]

Year and month	Total government	District of Columbia government	Federal						Legislative	Judicial
			Total	Executive 1						
				All agencies	Defense agencies 1	Post Office Department	All other agencies			
Employment										
1949: Average.....	241.8	19.5	222.3	214.0	70.4	8.2	135.4	7.7	0.6	
1950: Average.....	242.3	20.1	222.2	213.4	67.5	8.1	137.8	8.1	.7	
1950: May.....	240.0	20.2	219.8	211.1	65.6	7.8	137.7	8.0	.7	
June.....	238.7	20.0	218.7	209.9	64.8	7.7	137.4	8.1	.7	
July.....	239.1	19.8	219.3	210.6	65.2	7.7	137.7	8.0	.7	
August.....	240.7	19.8	220.9	212.0	66.1	7.7	138.2	8.2	.7	
September.....	243.7	20.0	223.7	215.0	66.3	7.6	138.1	8.0	.7	
October.....	244.8	20.1	224.7	215.6	70.8	7.5	137.5	8.2	.7	
November.....	247.9	20.4	227.5	218.7	72.4	7.6	138.7	8.1	.7	
December.....	256.2	20.3	235.9	227.1	74.1	12.7	140.3	8.1	.7	
1951: January.....	253.8	20.6	233.2	224.4	74.8	7.8	141.8	8.1	.7	
February.....	258.8	20.4	238.4	229.6	77.4	7.7	144.3	8.1	.7	
March.....	264.6	20.3	244.3	235.4	80.2	7.7	147.5	8.2	.7	
April.....	268.5	20.3	248.2	239.4	82.2	7.8	149.4	8.1	.7	
May.....	271.3	20.0	251.3	242.4	83.6	7.8	151.0	8.2	.7	
Payrolls										
1949: Average.....	\$75,870	\$5,080	\$70,820	\$67,410	\$21,119	\$2,791	\$43,500	\$2,870	\$240	
1950: Average.....	81,002	5,321	76,281	72,780	22,888	2,437	46,955	3,215	286	
1950: May.....	84,018	5,705	78,313	74,785	22,607	2,872	49,306	3,246	282	
June.....	82,733	5,590	77,143	73,656	22,186	2,867	48,003	3,214	273	
July.....	77,713	4,192	73,521	70,043	21,399	2,755	45,889	3,206	272	
August.....	85,472	4,514	80,958	77,372	24,459	2,918	49,995	3,277	309	
September.....	82,280	5,347	76,933	73,415	24,951	2,856	45,608	3,200	318	
October.....	84,657	5,680	78,977	75,424	24,465	2,892	48,337	3,250	328	
November.....	85,380	5,796	79,584	75,991	24,545	2,888	48,558	3,292	301	
December.....	85,285	5,558	79,727	76,228	24,786	3,835	47,607	3,207	292	
1951: January.....	91,032	5,923	85,129	81,564	26,543	2,944	52,077	3,249	316	
February.....	84,018	5,431	78,587	75,120	23,725	2,828	46,567	3,182	285	
March.....	93,837	5,575	88,259	84,709	29,403	2,949	52,357	3,261	289	
April.....	91,887	5,618	86,269	82,781	28,739	2,855	51,187	3,197	291	
May.....	100,621	5,964	94,657	91,003	31,747	2,899	56,357	3,338	316	

<sup>1</sup> Data for the executive branch of the Federal Government also include areas in Maryland and Virginia which are within the metropolitan area, as defined by the Bureau of the Census.

<sup>2</sup> Includes Government corporations (including Federal Reserve Banks and mixed-ownership banks of the Farm Credit Administration) and other activities performed by Governmental personnel in establishments such as navy yards, arsenals, hospitals, and force-account construction. Data which are based mainly on reports to the Civil Service Commission are adjusted to maintain continuity of coverage and definition.

<sup>3</sup> Covers civilian employees of the Department of Defense (Secretary of Defense, Army, Air Force, and Navy), National Advisory Committee for Aeronautics, the Panama Canal, Philippine Alien Property Administration, Philippine War Damage Commission, Selective Service System, National Security Resources Board, National Security Council, War Claims Commission.



TABLE A-11: Insured Unemployment Under State Unemployment Insurance Programs,<sup>1</sup> by Geographic Division and State

(In thousands)

Geographic division and State	1951					1950										1949
	April	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	April	April		
Continental United States.....	902.1	904.2	1,025.1	1,144.6	1,045.0	895.3	782.8	845.7	1,063.2	1,388.4	1,521.1	1,700.3	1,908.8	1,967.8		
New England.....	99.8	64.0	75.8	91.6	89.0	77.4	65.9	74.5	105.0	155.3	186.5	224.6	225.1	258.1		
Maine.....	11.2	6.2	7.9	10.2	11.4	10.3	8.5	5.2	7.4	10.1	13.0	19.6	22.7	19.4		
New Hampshire.....	7.6	4.2	4.6	5.8	6.3	6.8	5.8	6.5	8.8	10.8	12.9	15.6	16.3	17.5		
Vermont.....	1.2	1.0	1.3	1.7	1.7	1.3	1.1	1.4	2.1	3.1	3.4	4.0	4.6	5.6		
Massachusetts.....	55.1	33.5	41.1	49.8	49.0	41.9	35.6	42.1	55.8	85.3	107.1	124.8	123.6	119.2		
Rhode Island.....	13.1	9.6	9.2	10.5	9.3	6.9	6.3	8.4	13.7	20.1	26.6	33.6	25.9	42.1		
Connecticut.....	11.6	9.5	11.7	13.6	11.3	10.2	10.3	10.9	17.2	25.9	23.5	27.0	32.0	54.3		
Middle Atlantic.....	299.7	298.1	281.1	331.4	355.1	354.1	319.0	318.4	369.1	478.4	495.4	481.8	526.0	536.7		
New York.....	183.9	183.2	171.8	217.5	228.4	237.8	226.2	221.6	242.2	311.0	307.4	299.2	292.2	313.9		
New Jersey.....	45.1	36.1	40.0	51.3	41.1	38.7	35.4	34.3	44.6	60.7	68.1	79.6	84.9	87.3		
Pennsylvania.....	72.7	68.8	69.3	82.6	75.6	57.6	57.4	62.5	82.3	106.7	119.9	132.7	148.9	136.5		
East North Central.....	191.9	183.7	176.4	206.7	178.0	129.0	113.1	133.6	178.4	218.4	242.4	304.0	373.4	330.0		
Ohio.....	27.7	30.0	30.9	40.9	36.4	30.2	28.5	32.3	41.0	67.5	65.0	81.5	103.5	84.9		
Indiana.....	14.9	11.4	14.4	14.7	13.3	8.6	9.4	7.9	8.9	13.1	14.5	19.2	26.7	37.5		
Illinois.....	72.9	52.6	68.1	76.5	68.2	58.6	57.5	71.3	103.6	117.5	128.6	147.6	148.1	121.1		
Michigan.....	27.8	29.8	39.9	54.8	40.8	23.3	12.8	16.1	18.2	22.0	24.6	42.7	75.9	92.2		
Wisconsin.....	7.6	9.9	14.1	13.8	10.3	8.3	4.9	6.0	6.7	8.3	9.7	12.9	19.2	23.3		
West North Central.....	52.2	61.0	70.3	65.6	48.5	34.7	28.4	29.2	38.6	49.0	57.4	77.7	101.7	86.2		
Minnesota.....	18.4	20.6	21.4	19.3	12.0	6.8	5.5	6.3	8.3	10.8	13.1	23.2	32.8	26.6		
Iowa.....	4.8	6.2	7.4	7.0	4.3	2.9	2.6	3.5	4.5	4.8	5.1	6.2	8.9	9.5		
Missouri.....	20.3	20.2	24.2	24.3	22.9	20.0	16.2	15.2	20.0	25.5	29.7	34.6	39.3	35.5		
North Dakota.....	1.9	3.2	3.1	2.4	1.3	.3	.2	.2	.3	.4	.7	2.2	3.7	1.4		
South Dakota.....	1.1	2.1	2.4	2.1	1.1	.5	.3	.3	.4	.4	.5	1.0	1.9	1.0		
Nebraska.....	2.1	3.8	4.8	4.1	2.1	1.0	.8	.9	1.3	1.9	2.3	3.3	5.4	3.6		
Kansas.....	3.6	4.9	7.0	6.4	4.8	3.2	2.8	2.8	4.0	5.2	6.0	7.2	9.7	7.4		
South Atlantic.....	78.0	72.6	83.5	94.3	85.5	70.4	69.8	83.3	113.0	157.8	163.5	167.7	164.0	172.2		
Delaware.....	1.0	1.1	1.6	1.9	1.4	.8	1.0	.9	1.2	1.8	1.9	2.3	2.7	2.4		
Maryland.....	11.6	8.3	11.2	13.2	11.2	8.5	7.7	10.3	16.1	22.1	23.3	29.1	29.3	30.0		
District of Columbia.....	2.1	2.7	3.8	3.3	2.8	2.7	2.6	3.0	3.4	4.0	4.1	4.6	5.9	5.0		
Virginia.....	5.4	6.6	8.0	8.7	7.7	4.6	5.3	7.2	13.7	22.1	24.1	18.9	18.7	18.1		
West Virginia.....	11.0	11.2	13.7	14.2	13.0	8.4	10.4	13.4	16.7	21.8	24.1	23.4	21.8	20.0		
North Carolina.....	20.1	17.5	17.7	18.0	16.8	14.5	12.6	15.1	10.0	30.8	33.7	36.7	37.3	38.9		
South Carolina.....	7.1	7.2	8.2	9.4	8.7	5.3	8.8	9.6	11.4	15.8	15.4	14.6	14.4	17.3		
Georgia.....	12.2	10.5	11.5	14.1	12.9	9.7	7.6	8.9	12.4	18.9	21.1	23.2	22.8	24.0		
Florida.....	7.5	7.5	7.8	11.5	11.0	10.9	13.8	16.9	19.1	20.5	15.8	14.7	14.1	16.5		
East South Central.....	60.7	59.7	68.0	65.0	57.5	46.6	42.9	48.9	62.1	78.8	87.4	99.5	105.4	109.4		
Kentucky.....	17.7	15.8	15.9	14.3	13.6	12.0	11.5	12.4	15.3	19.4	22.3	24.8	25.2	24.4		
Tennessee.....	22.4	21.8	25.0	25.8	22.2	16.9	14.5	16.5	22.2	27.3	32.6	36.8	40.1	47.4		
Alabama.....	13.4	13.9	14.3	15.1	13.8	12.3	12.1	14.2	16.9	22.1	21.9	25.4	25.9	25.6		
Mississippi.....	7.2	8.2	10.8	9.8	7.9	5.4	4.8	5.8	7.7	10.0	10.6	12.5	14.2	12.0		
West South Central.....	47.1	52.3	61.7	54.0	43.8	36.0	34.8	41.5	52.1	62.8	69.9	83.4	95.0	80.8		
Arkansas.....	8.6	9.5	12.7	11.1	8.4	6.2	5.2	6.9	7.7	9.4	10.4	14.0	17.6	15.2		
Louisiana.....	18.4	19.6	22.4	18.1	13.9	11.7	12.4	14.3	18.1	21.5	22.5	25.8	29.9	24.4		
Oklahoma.....	8.9	10.7	12.7	11.1	9.2	7.6	7.0	8.0	9.8	11.4	12.0	14.8	16.5	13.5		
Texas.....	11.2	12.5	13.9	13.7	12.3	10.5	10.2	12.3	16.5	20.7	24.4	28.8	30.6	27.7		
Mountain.....	16.6	25.3	30.3	28.6	19.8	13.4	10.2	11.2	14.6	18.6	20.8	27.8	37.9	28.8		
Montana.....	3.9	6.9	7.3	6.2	3.7	1.9	1.2	1.0	1.4	1.9	2.5	4.6	5.2	4.7		
Idaho.....	1.9	4.4	5.9	6.2	4.3	2.0	.9	1.0	1.4	1.7	1.5	3.0	5.6	3.8		
Wyoming.....	.8	1.5	1.9	1.6	.9	.4	.3	.3	.4	.7	.9	1.4	2.0	1.1		
Colorado.....	2.1	2.5	3.1	3.1	2.5	2.1	1.7	2.1	3.2	4.2	4.7	5.6	5.6	4.8		
New Mexico.....	1.6	2.1	2.3	2.0	1.7	1.2	1.0	1.2	1.6	2.0	2.2	2.7	3.4	2.6		
Arizona.....	2.3	2.6	3.1	3.2	2.8	2.6	2.6	2.9	3.4	3.6	3.6	4.2	4.7	3.8		
Utah.....	2.8	3.8	4.7	4.4	2.4	1.9	1.5	1.7	2.1	3.1	3.5	4.3	5.9	3.8		
Nevada.....	1.2	1.7	2.0	1.9	1.5	1.3	1.0	1.0	1.1	1.4	1.6	2.0	2.5	2.3		
Pacific.....	127.2	167.3	179.6	193.2	167.9	133.8	98.8	103.2	129.9	169.4	196.1	234.2	280.4	336.4		
Washington.....	14.2	25.4	28.8	31.2	26.2	19.0	11.7	11.1	13.2	15.6	16.5	23.9	36.0	35.3		
Oregon.....	8.2	18.3	19.9	22.4	17.9	13.7	7.6	6.4	7.5	9.6	8.3	12.3	20.6	19.7		
California.....	104.8	123.6	130.9	139.6	123.8	101.1	79.5	85.7	109.2	144.2	171.3	198.0	223.8	281.4		

<sup>1</sup> Prior to August 1950, monthly data represent averages of weeks ended in specified months; for subsequent months, the averages are based on weekly data adjusted for split weeks in the month and are not strictly comparable with earlier data. For a technical description of this series, see the April 1950 Monthly Labor Review (p. 382).

Figures may not add to exact column totals because of rounding.

SOURCE: U. S. Department of Labor, Bureau of Employment Security.



## B: Labor Turn-Over

TABLE B-1: Monthly Labor Turn-Over Rates (Per 100 Employees) in Manufacturing Industries, by Class of Turn-Over<sup>1</sup>

Class of turn-over and year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<b>Total separation:</b>												
1931.....	4.1	3.8	4.1	4.5								
1932.....	3.1	4.0	2.9	2.8	3.1	3.0	2.9	4.2	4.9	4.3	3.8	3.6
1933.....	4.6	4.1	4.8	4.8	3.2	4.3	3.8	4.0	4.2	4.1	4.0	3.2
1934.....	4.3	4.2	4.5	4.7	4.3	4.5	4.4	4.1	4.4	4.6	4.1	4.3
1935.....	4.9	4.5	4.9	5.2	5.4	4.7	4.6	5.3	5.9	5.0	4.0	3.7
1936.....	6.8	6.3	6.6	6.3	6.3	5.7	5.8	6.6	6.9	6.3	4.9	4.5
1937.....	3.2	2.6	3.1	3.5	3.5	3.3	3.3	3.0	2.8	2.9	3.0	3.5
<b>Quit:</b>												
1931.....	2.1	2.1	2.5	2.7								
1932.....	1.1	1.0	1.2	1.3	1.6	1.7	1.8	2.9	3.4	2.7	2.1	1.7
1933.....	1.7	1.4	1.6	1.7	1.6	1.5	1.4	1.8	2.1	1.5	1.2	1.9
1934.....	2.6	2.5	2.8	3.0	2.8	2.9	2.9	3.4	3.9	2.8	2.2	1.7
1935.....	3.5	3.2	3.5	3.7	3.5	3.1	3.1	4.0	4.5	3.6	2.7	2.3
1936.....	4.3	3.9	4.2	4.5	4.2	4.0	4.6	5.3	5.3	4.7	3.7	3.0
1937.....	.9	.6	.6	.8	.7	.7	.7	.8	1.1	.9	.8	.7
<b>Discharge:</b>												
1931.....	.3	.3	.3	.4								
1932.....	.2	.2	.2	.2	.3	.3	.3	.4	.4	.4	.3	.3
1933.....	.3	.3	.3	.3	.2	.2	.2	.3	.2	.2	.2	.2
1934.....	.4	.4	.4	.4	.3	.4	.4	.4	.4	.4	.4	.3
1935.....	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4
1936.....	.5	.5	.4	.4	.3	.4	.4	.4	.4	.4	.4	.4
1937.....	.1	.1	.1	.1	.1	.1	.1	.1	.1	.2	.2	.1
<b>Lay-off:</b>												
1931.....	1.0	.8	.8	.9								
1932.....	1.7	1.7	1.4	1.2	1.1	.9	.6	.7	.5	1.1	1.3	1.3
1933.....	2.5	2.3	2.8	2.8	3.3	2.5	2.1	1.8	1.8	2.3	2.5	2.0
1934.....	1.2	1.2	1.2	1.2	1.1	1.1	1.0	1.2	1.0	1.2	1.4	2.2
1935.....	.9	.8	.9	1.0	1.4	1.1	1.0	.8	.9	.9	.8	.9
1936.....	1.8	1.7	1.8	1.4	1.5	1.2	.6	1.0	1.0	1.0	1.0	1.0
1937.....	2.2	1.9	2.2	2.6	2.7	2.5	2.5	2.1	1.6	1.8	2.0	2.7
<b>Miscellaneous, including military:</b>												
1931.....	.7	.6	.5	.5								
1932.....	.1	.1	.1	.1	.1	.1	.2	.3	.4	.4	.3	.3
1933.....	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
1934.....	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
1935.....	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
1936.....	.2	.2	.2	.2	.3	.2	.2	.2	.2	.2	.1	.1
<b>Total accession:</b>												
1931.....	8.2	4.5	4.6	4.5								
1932.....	3.6	3.2	3.6	3.5	4.4	4.8	4.7	6.6	5.7	5.2	4.0	3.0
1933.....	3.2	2.9	3.0	2.9	3.5	4.4	3.5	4.4	4.1	3.7	3.3	3.2
1934.....	4.6	3.9	4.0	4.0	4.1	5.7	4.7	5.0	5.1	4.5	3.9	2.7
1935.....	6.0	5.0	5.1	5.1	4.8	5.5	4.9	5.3	5.9	5.5	4.8	3.6
1936.....	8.5	6.8	7.1	6.7	6.1	6.7	7.4	7.0	7.1	6.8	5.7	4.3
1937.....	4.1	3.1	3.3	2.9	3.3	3.9	4.2	5.1	6.2	5.9	4.1	2.8

<sup>1</sup> Month-to-month changes in total employment in manufacturing industries as indicated by labor turn-over rates are not comparable with the changes shown by the Bureau's employment and payroll reports, for the following reasons:

(1) Accessions and separations are computed for the entire calendar month; the employment and payroll reports, for the most part, refer to a 1-week pay period ending nearest the 15th of the month.

(2) The turn-over sample is not so large as that of the employment and payroll sample and includes proportionately fewer small plants; certain industries are not covered. The major industries excluded are: printing, publishing, and allied industries; canning and preserving fruits, vegetables, and sea foods; women's, misses', and children's outerwear; and fertilizers.

(3) Plants are not included in the turn-over computations in months when work stoppages are in progress; the influence of such stoppages is reflected, however, in the employment and payroll figures. Prior to 1943, rates relate to production workers only.

\* Preliminary figures.

\* Prior to 1940, miscellaneous separations were included with quits.

Notes: Information on concepts, methodology, and special studies, etc., is given in a "Technical Note on Labor Turn-Over," October 1949, which is available upon request to the Bureau of Labor Statistics.



TABLE B-2: Monthly Labor Turn-Over Rates (Per 100 Employees) in Selected Groups and Industries<sup>1</sup>

Industry group and industry	Separation										Total accession	
	Total		Quit		Discharge		Lay-off		Misc., incl. military			
	Apr. 1951	Mar. 1951	Apr. 1951	Mar. 1951	Apr. 1951	Mar. 1951	Apr. 1951	Mar. 1951	Apr. 1951	Mar. 1951	Apr. 1951	Mar. 1951
Manufacturing												
Durable goods <sup>2</sup> .....	4.7	4.4	3.0	2.7	0.4	0.4	0.8	0.7	0.5	0.6	5.2	5.1
Nondurable goods <sup>3</sup> .....	3.9	3.9	2.2	2.1	.3	.3	1.1	1.0	.3	.5	3.4	3.7
Ordinance and accessories.....	(9)	2.3	(9)	1.3	(9)	.4	(9)	.3	(9)	.3	(9)	3.3
Food and kindred products.....	4.9	5.5	2.3	2.4	.3	.4	2.0	2.3	.3	.4	4.6	4.9
Meat products.....	5.7	7.7	2.3	2.3	.3	.3	2.7	4.6	.4	.5	6.1	5.6
Grain-mill products.....	4.4	3.8	2.6	2.1	.4	.3	1.2	.9	.2	.5	2.8	3.0
Bakery products.....	5.5	4.3	3.2	2.8	.4	.6	1.7	.6	.2	.3	4.3	4.7
Beverages.....	3.0	2.5	1.0	1.0	.2	.1	1.6	1.2	.2	.2	4.6	4.7
Malt liquors.....	4.6	4.1	1.9	1.9	.3	.3	1.6	1.0	.8	.9	3.9	3.3
Tobacco manufactures.....	3.2	3.6	1.3	1.3	.1	.2	.4	.8	1.4	1.3	2.5	2.4
Cigarettes.....	5.8	4.7	2.4	2.3	.2	.3	2.7	1.4	.5	.7	4.8	3.8
Cigars.....	3.8	2.7	1.9	1.5	.7	.7	.4	(9)	.8	.5	3.9	3.5
Tobacco and snuff.....	3.8	3.6	1.9	2.0	.2	.2	1.3	.8	.4	.6	2.9	3.3
Textile-mill products.....	4.4	3.4	2.3	1.9	.2	.2	1.3	.7	.6	.6	3.6	3.7
Yarn and thread mills.....	3.5	3.6	1.8	2.1	.3	.3	.9	.5	.5	.7	3.1	3.6
Cotton, silk, synthetic fiber.....	3.0	3.6	1.8	2.2	.3	.3	.5	.4	.4	.7	2.9	3.6
Woolen and worsted.....	4.8	3.0	1.2	1.0	.7	.1	2.2	1.4	.7	.5	4.3	3.3
Knitting mills.....	4.4	3.8	2.3	2.3	.2	.2	1.7	1.1	.2	.2	2.7	2.9
Full-fashioned hosiery.....	3.5	4.1	1.8	2.0	.2	.1	1.3	1.7	.2	.3	1.7	1.4
Seamless hosiery.....	6.2	3.7	2.1	2.1	.1	.1	3.8	1.3	.2	.3	2.2	3.1
Knit underwear.....	3.6	3.6	2.9	2.9	.2	.2	.4	.4	.1	.1	3.7	4.7
Dyeing and finishing textiles.....	5.2	3.0	1.4	1.5	.2	.3	2.9	.6	.7	.6	1.9	2.3
Carpets, rugs, other floor coverings.....	3.0	2.6	1.7	1.1	.2	.1	.6	.2	.5	.6	2.2	2.4
Apparel and other finished textile products.....	4.5	4.2	3.2	3.1	.2	.2	.8	.5	.3	.4	3.6	4.7
Men's and boys' suits and coats.....	4.1	3.7	2.3	2.6	.2	.2	1.3	.4	.3	.5	3.3	3.8
Men's and boys' furnishings and work clothing.....	5.2	4.6	3.7	3.4	.3	.2	.9	.7	.3	.3	3.5	4.9
Lumber and wood products (except furniture).....	6.1	5.1	4.7	3.5	.3	.2	.8	1.0	.3	.4	6.6	5.2
Logging camps and contractors.....	9.7	11.1	7.2	7.6	.4	.6	1.5	2.6	.6	.3	13.6	11.9
Sawmills and planing mills.....	5.7	4.8	4.6	3.2	.3	.2	.6	1.1	.2	.3	6.3	5.0
Millwork, plywood, and prefabricated structural wood products.....	4.9	4.1	2.9	2.7	.4	.2	1.2	.5	.4	.7	3.8	3.6
Furniture and fixtures.....	7.6	6.4	4.5	4.4	.6	.6	2.1	.8	.4	.6	4.8	5.3
Household furniture.....	8.6	7.0	4.6	4.7	.7	.7	2.9	1.0	.4	.6	4.2	5.0
Other furniture and fixtures.....	5.5	4.9	4.3	3.6	.4	.5	.3	.3	.5	.5	6.4	6.0
Paper and allied products.....	3.5	3.4	2.4	2.1	.3	.3	.3	.4	.5	.6	3.6	3.7
Pulp, paper, and paperboard mills.....	4.6	4.6	3.1	2.7	.5	.4	.2	.4	.5	.9	2.9	3.0
Paperboard containers and boxes.....	4.8	4.6	3.3	3.3	.6	.4	.3	.4	.6	.5	4.7	4.2
Chemicals and allied products.....	2.4	1.9	1.4	1.1	.3	.2	.5	.2	.2	.4	2.9	2.6
Industrial inorganic chemicals.....	2.4	2.5	1.7	1.6	.5	.4	(9)	.2	.2	.3	4.0	3.2
Industrial organic chemicals.....	1.7	1.6	1.0	.9	.3	.2	.3	.1	.2	.4	2.8	2.4
Synthetic fibers.....	1.5	1.5	.4	.6	.1	.1	.9	(9)	.1	.8	1.6	1.8
Drugs and medicines.....	1.3	1.5	.8	1.0	.1	.2	.1	(9)	.3	.3	2.2	2.9
Paints, pigments, and fillers.....	2.6	2.1	1.6	1.3	.4	.3	.5	.3	.1	.2	2.9	3.2
Products of petroleum and coal.....	1.0	1.2	.5	.6	.1	.1	.1	.1	.3	.4	1.5	1.5
Petroleum refining.....	.6	.7	.3	.3	(9)	(9)	.1	.1	.2	.3	1.3	1.1
Rubber products.....	4.0	4.1	2.8	2.5	.2	.3	.7	.9	.3	.4	3.7	3.5
Tires and inner tubes.....	2.1	2.3	1.3	1.0	.1	.1	.4	.8	.3	.4	2.0	2.8
Rubber footwear.....	4.4	6.1	3.5	4.5	.1	.3	.4	1.0	.4	.4	5.0	6.2
Other rubber products.....	5.8	5.1	4.1	3.3	.3	.4	1.0	1.0	.4	.4	4.9	4.0
Leather and leather products.....	5.0	4.8	3.0	2.8	.2	.3	1.5	1.3	.3	.4	2.8	3.8
Leather.....	5.1	4.7	2.0	1.6	.1	.2	2.6	2.5	.4	.4	1.8	2.4
Footwear (except rubber).....	5.2	5.0	3.3	3.2	.3	.2	1.2	1.2	.4	.4	2.8	3.6
Stone, clay, and glass products.....	3.5	3.2	2.3	2.0	.3	.2	.5	.4	.4	.6	3.8	3.8
Glass and glass products.....	4.4	3.6	2.3	1.8	.4	.2	1.1	.8	.6	.8	4.0	4.6
Cement, hydraulic.....	2.4	2.3	1.8	1.7	.2	.2	(9)	(9)	.4	.4	2.6	2.9
Structural clay products.....	3.6	3.5	3.0	2.8	.3	.3	.1	.2	.2	.5	4.6	4.3
Pottery and related products.....	3.7	3.7	2.3	2.5	.4	.4	.8	.3	.2	.5	3.5	3.4
Primary metal industries.....	3.7	3.5	2.4	2.1	.3	.3	.5	.5	.5	.6	3.9	3.7
Blast furnaces, steel works, and rolling mills.....	2.4	2.3	1.6	1.5	.1	.1	.1	.2	.6	.5	2.6	2.5
Iron and steel foundries.....	5.5	5.5	4.0	3.8	.7	.8	.3	.4	.5	.5	6.3	6.7
Gray-iron foundries.....	5.4	5.5	3.7	3.8	.7	.7	.4	.4	.6	.6	5.3	6.2
Malleable-iron foundries.....	6.3	5.9	4.9	4.1	.7	.8	.1	.1	.6	.9	6.8	7.0
Steel foundries.....	5.4	5.4	4.1	3.7	.9	.9	.1	.5	.3	.3	7.5	7.1
Primary smelting and refining of nonferrous metals.....	2.3	1.9	1.5	.9	.1	.1	.4	.3	.3	.6	1.8	1.3
Primary smelting and refining of copper, lead, and zinc.....	2.8	2.4	1.4	1.2	.1	.1	.9	.7	.4	.4	1.5	1.3
Rolling, drawing, and alloying of nonferrous metals.....	6.1	7.0	3.4	2.8	.5	.6	1.6	2.8	.6	.8	6.4	8.0
Rolling, drawing, and alloying of copper.....	4.5	4.2	3.5	2.9	.4	.4	.3	.5	.3	.4	5.0	5.1

See footnotes at end of table.



TABLE B-2: Monthly Labor Turn-Over Rates (Per 100 Employees) in Selected Groups and Industries<sup>1</sup>—Continued

Industry group and industry	Separation										Total accession	
	Total		Quit		Discharge		Lay-off		Misc., incl. military			
	Apr. 1951	Mar. 1951	Apr. 1951	Mar. 1951	Apr. 1951	Mar. 1951	Apr. 1951	Mar. 1951	Apr. 1951	Mar. 1951	Apr. 1951	Mar. 1951
Manufacturing—Continued												
Fabricated metal products (except ordnance, machinery, and transportation equipment).....	4.8	4.6	3.1	2.8	0.5	0.4	0.8	0.8	0.4	0.8	5.0	5.2
Cutlery, hand tools, and hardware.....	4.7	4.3	3.1	2.8	.4	.4	.8	.6	.4	.5	4.0	3.9
Cutlery and edge tools.....	3.1	3.5	1.7	2.2	.4	.6	.8	.6	.2	.2	1.9	2.6
Hand tools.....	3.8	3.2	2.4	1.8	.5	.4	.4	.3	.5	.7	3.5	3.9
Hardware.....	5.6	4.8	3.8	3.4	.4	.4	1.0	.5	.4	.6	4.7	4.3
Heating apparatus (except electric) and plumbers' supplies.....	5.3	5.2	3.5	3.3	.9	.6	.5	.7	.4	.6	5.5	5.1
Sanitary ware and plumbers' supplies.....	5.6	4.9	3.8	3.2	1.0	.5	.3	.7	.5	.5	5.7	5.0
Oil burners, nonelectric heating and cooking apparatus, not elsewhere classified.....	5.2	5.2	3.4	3.3	.8	.7	.7	.7	.3	.5	5.5	5.3
Fabricated structural metal products.....	4.2	4.4	2.9	2.5	.6	.6	.4	.8	.3	.5	5.2	4.7
Metal stamping, coating, and engraving.....	6.1	6.1	3.8	3.8	.3	.4	1.6	1.4	.4	.5	5.5	7.4
Machinery (except electrical).....	3.7	3.7	2.5	2.4	.5	.5	.3	.3	.4	.5	4.7	4.7
Engines and turbines.....	4.0	4.2	2.9	2.7	.6	.4	.2	.4	.3	.7	5.7	5.3
Agricultural machinery and tractors.....	3.7	3.7	2.7	2.6	.4	.4	.1	.1	.5	.6	4.5	4.5
Construction and mining machinery.....	4.0	3.8	2.8	2.5	.5	.5	.4	.4	.3	.4	4.8	4.3
Metalworking machinery.....	4.4	4.3	3.1	3.0	.8	.7	.2	.2	.3	.4	6.0	5.9
Machine tools.....	4.4	4.2	3.2	3.1	.8	.7	.1	( <sup>2</sup> )	.3	.4	6.1	6.4
Metalworking machinery (except machine tools).....	3.2	3.6	2.4	2.6	.4	.5	.2	.3	.2	.2	4.1	3.5
Machine-tool accessories.....	5.1	4.8	3.4	3.1	.9	.8	.6	.3	.2	.3	7.6	7.3
Special-industry machinery metalworking machinery.....	3.2	3.3	2.2	2.2	.4	.4	.3	.3	.3	.4	3.8	4.4
General industrial machinery.....	3.4	3.5	2.5	2.4	.5	.6	.1	.1	.3	.4	4.8	4.5
Office and store machines and devices.....	2.7	3.0	1.3	1.6	.2	.3	.7	.5	.5	.6	3.4	3.8
Service-industry and household machines.....	3.2	3.5	1.4	1.9	.3	.3	1.1	.5	.4	.8	3.3	3.4
Miscellaneous machinery parts.....	3.9	3.8	2.6	2.5	.7	.5	.2	.2	.4	.6	5.1	5.1
Electrical machinery.....	4.4	3.7	2.5	2.2	.4	.3	1.0	.5	.5	.7	4.5	4.7
Electrical generating, transmission, distribution, and industrial apparatus.....	3.3	2.7	2.1	1.5	.3	.2	.3	.3	.6	.7	4.3	4.2
Communication equipment.....	5.5	4.9	2.7	2.9	.3	.5	1.8	.6	.7	.9	4.7	5.7
Radios, phonographs, television sets, and equipment.....	7.2	6.2	2.7	3.2	.4	.7	3.1	.9	1.0	1.4	5.0	6.6
Telephone and telegraph equipment.....	1.6	1.9	1.2	1.3	.1	.1	( <sup>2</sup> )	( <sup>2</sup> )	.3	.5	3.7	3.1
Electrical appliances, lamps, and miscellaneous products.....	4.0	3.9	2.5	2.4	.2	.2	.8	.7	.5	.6	3.7	3.6
Transportation equipment.....	6.1	5.6	3.8	3.4	.5	.4	1.2	1.1	.6	.7	7.8	7.7
Automobiles.....	6.6	5.0	4.2	3.4	.6	.4	1.1	.4	.7	.8	6.9	6.7
Aircraft and parts.....	4.3	4.7	3.3	3.5	.3	.4	.1	.1	.6	.7	7.5	8.4
Aircraft.....	4.6	5.0	3.6	3.8	.3	.4	.1	.1	.6	.7	7.7	9.2
Aircraft engines and parts.....	2.9	3.3	2.0	2.4	.3	.4	( <sup>2</sup> )	( <sup>2</sup> )	.6	.5	6.5	6.3
Aircraft propellers and parts.....	2.5	2.1	1.6	1.3	.3	.3	( <sup>2</sup> )	( <sup>2</sup> )	.6	.5	5.1	5.4
Other aircraft parts and equipment.....	8.6	3.8	3.8	2.4	.7	.7	( <sup>2</sup> )	.1	1.1	.6	9.2	5.3
Ship and boat building and repairing.....	( <sup>2</sup> )	17.9	( <sup>2</sup> )	5.1	( <sup>2</sup> )	1.2	( <sup>2</sup> )	11.0	( <sup>2</sup> )	.6	( <sup>2</sup> )	14.7
Railroad equipment.....	3.5	4.1	1.7	1.7	.3	.2	.8	1.1	.7	1.1	10.2	7.4
Locomotives and parts.....	2.1	3.1	1.2	1.4	.2	.2	( <sup>2</sup> )	.2	.7	1.3	9.5	8.2
Railroad and street cars.....	6.8	5.6	2.6	1.9	.5	.1	3.1	3.0	.6	.6	10.2	9.9
Other transportation equipment.....	3.4	4.1	1.4	1.1	.1	.3	1.6	2.3	.3	.4	1.9	2.1
Instruments and related products.....	2.7	2.4	1.6	1.5	.3	.3	.4	.2	.4	.4	3.4	3.8
Photographic apparatus.....	( <sup>2</sup> )	1.2	( <sup>2</sup> )	.8	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	.1	( <sup>2</sup> )	.3	( <sup>2</sup> )	2.1
Watches and clocks.....	3.3	3.2	1.8	2.2	.1	.1	1.0	.5	.4	.4	2.5	3.6
Professional and scientific instruments.....	2.9	2.5	1.7	1.6	.4	.4	.4	.2	.4	.3	3.9	4.6
Miscellaneous manufacturing industries.....	5.6	4.8	3.2	3.1	.4	.3	1.5	.7	.5	.7	4.7	4.8
Jewelry, silverware, and plated ware.....	4.8	3.9	3.0	2.6	.2	.1	.9	.6	.7	.6	3.4	3.3
Nonmanufacturing												
Metal mining.....	5.7	4.8	4.7	3.4	.4	.4	.2	.4	.4	.6	6.0	4.0
Iron.....	2.3	2.7	1.6	1.0	.2	.1	.1	1.1	.4	.5	6.3	1.8
Copper.....	7.9	4.9	7.1	4.0	.3	.3	.2	( <sup>2</sup> )	.3	.6	5.3	4.3
Lead and zinc.....	5.0	4.0	4.0	3.1	.2	.3	.3	.1	.5	.5	4.0	3.5
Anthracite mining.....	2.3	2.1	.9	1.1	( <sup>2</sup> )	( <sup>2</sup> )	1.0	.7	.4	.3	1.2	1.2
Bituminous-coal mining.....	3.7	2.8	1.9	1.6	.1	.1	1.4	.8	.3	.3	1.8	1.6
Communication:												
Telephone.....	( <sup>2</sup> )	2.0	( <sup>2</sup> )	1.5	( <sup>2</sup> )	.1	( <sup>2</sup> )	.1	( <sup>2</sup> )	.3	( <sup>2</sup> )	2.5
Telegraph.....	( <sup>2</sup> )	1.8	( <sup>2</sup> )	1.2	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	.2	( <sup>2</sup> )	.4	( <sup>2</sup> )	2.2

<sup>1</sup> See footnote 1, table B-1. Data for the current month are subject to revision without notation; revised figures for earlier months will be indicated by footnotes.<sup>2</sup> See footnote 2, table A-2.<sup>3</sup> See footnote 3, table A-2. Printing, publishing, and allied industries are excluded.<sup>4</sup> Not available.<sup>5</sup> Less than 0.05.



## C: Earnings and Hours

TABLE C-1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees<sup>1</sup>

Year and month	Mining																				
	Metal																				
	Total: Metal						Iron			Copper			Lead and zinc			Anthracite			Bituminous		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings			
1949: Average.....	\$61.55	40.9	\$1.505	\$58.91	39.7	\$1.494	\$63.96	42.3	\$1.512	\$64.79	41.4	\$1.565	\$58.78	39.2	\$1.890	\$63.28	32.6	\$1.941			
1950: Average.....	63.58	42.2	1.554	61.96	40.9	1.515	72.05	43.0	1.601	66.64	41.6	1.602	63.34	32.1	1.970	70.35	33.0	2.010			
1950: April.....	62.90	41.6	1.512	59.62	40.3	1.483	68.13	43.9	1.532	63.55	41.4	1.535	57.25	29.0	1.974	72.79	36.0	2.022			
May.....	63.11	41.6	1.517	59.33	39.9	1.487	69.42	44.5	1.580	63.71	41.4	1.536	68.81	34.7	1.983	68.37	34.1	2.005			
June.....	63.40	41.6	1.524	60.75	40.8	1.489	69.55	44.3	1.570	63.38	40.5	1.562	64.94	32.6	1.992	69.82	34.7	2.016			
July.....	63.17	41.1	1.537	61.61	40.9	1.504	67.95	42.9	1.584	62.96	39.7	1.588	68.99	34.9	1.971	69.08	34.6	2.014			
August.....	64.45	41.9	1.539	60.97	40.7	1.498	71.53	44.9	1.593	64.73	41.1	1.575	65.77	35.2	1.981	71.04	35.6	2.001			
September.....	66.38	42.2	1.573	62.80	41.1	1.528	72.46	45.2	1.603	68.06	41.2	1.632	68.45	34.6	1.984	71.92	35.5	2.026			
October.....	69.84	43.9	1.591	66.53	43.4	1.533	75.68	46.4	1.631	71.95	42.8	1.681	75.59	37.2	2.032	72.99	36.1	2.022			
November.....	69.92	43.0	1.626	63.77	41.6	1.533	78.78	46.1	1.709	73.01	42.3	1.726	69.85	31.0	1.953	73.27	36.4	2.013			
December.....	73.53	43.9	1.675	70.61	42.3	1.667	79.82	47.2	1.691	75.34	43.2	1.744	65.14	32.8	1.967	77.77	38.5	2.020			
1951: January.....	74.33	43.7	1.701	70.31	41.8	1.682	82.21	47.3	1.738	75.34	43.1	1.748	71.33	35.9	1.987	75.63	37.6	2.038			
February.....	73.46	43.7	1.681	70.98	42.5	1.670	78.49	46.5	1.688	74.17	42.8	1.733	66.65	30.2	2.207	75.67	34.1	2.219			
March.....	72.92	43.3	1.694	69.22	41.3	1.676	78.15	46.6	1.677	74.22	43.0	1.726	52.54	24.0	2.189	74.60	33.5	2.227			
April.....	74.33	43.8	1.697	72.59	42.8	1.696	76.91	46.0	1.672	77.22	43.6	1.771	48.33	22.2	2.177	76.16	34.0	2.240			
Mining—Continued																					
Contract construction																					
Crude petroleum and natural gas production																					
Nonbuilding construction																					
Petroleum and natural gas production (except contract services)																					
Nonmetallic mining and quarrying																					
Total: Contract construction																					
Total: Nonbuilding construction																					
Highway and street																					
Other nonbuilding construction																					
1949: Average.....	\$71.48	40.2	\$1.778	\$59.38	43.3	\$1.302	\$70.81	37.8	\$1.874	\$70.44	40.9	\$1.723	\$65.65	41.8	\$1.883	\$73.66	40.5	\$1.829			
1950: Average.....	73.69	40.6	1.815	59.88	44.0	1.361	73.73	37.2	1.982	73.46	40.9	1.796	69.17	41.1	1.883	76.31	40.7	1.875			
1950: April.....	74.41	41.2	1.806	59.63	43.8	1.331	70.93	36.6	1.938	71.41	40.9	1.746	66.54	40.7	1.635	74.33	41.0	1.813			
May.....	70.88	40.0	1.772	59.45	44.4	1.339	72.74	37.3	1.950	71.71	40.7	1.782	68.06	41.0	1.660	74.20	40.5	1.832			
June.....	71.06	40.0	1.777	60.39	44.9	1.345	73.78	38.0	1.941	73.73	42.0	1.756	69.86	42.6	1.640	76.84	41.6	1.847			
July.....	73.89	41.6	1.817	60.92	44.6	1.396	74.06	37.9	1.954	73.70	41.5	1.776	69.31	41.5	1.670	77.19	41.5	1.860			
August.....	71.61	40.3	1.762	61.74	45.2	1.356	75.96	38.6	1.998	76.48	42.7	1.791	73.88	44.0	1.679	78.33	41.6	1.853			
September.....	73.47	40.5	1.814	62.51	45.1	1.386	78.89	37.7	2.013	73.66	41.5	1.828	70.84	41.5	1.707	79.72	41.5	1.921			
October.....	77.67	41.4	1.876	64.63	45.1	1.398	77.92	38.5	2.024	77.65	42.5	1.827	73.32	42.8	1.713	80.92	42.3	1.913			
November.....	76.21	40.6	1.876	63.31	44.9	1.410	77.82	38.0	2.040	75.42	40.9	1.844	70.91	41.2	1.721	78.99	40.7	1.931			
December.....	75.58	40.2	1.880	62.12	43.5	1.428	77.36	37.3	2.074	75.58	40.2	1.880	68.49	39.8	1.746	79.46	40.5	1.962			
1951: January.....	76.90	40.6	1.894	61.98	43.3	1.431	77.61	37.1	2.092	74.70	39.4	1.896	66.10	38.1	1.735	79.80	40.2	1.965			
February.....	77.15	40.5	1.905	60.77	42.0	1.447	75.47	35.7	2.114	72.20	37.7	1.915	65.83	37.3	1.765	75.80	37.9	2.000			
March.....	76.67	40.6	1.886	63.49	43.4	1.463	79.34	37.3	2.127	73.67	38.3	1.921	66.87	38.1	1.755	77.81	38.5	2.021			
April.....	80.90	41.2	1.954	68.29	45.0	1.473	82.94	38.5	2.131	77.51	40.1	1.933	71.01	40.6	1.749	81.79	39.8	2.055			
Contract construction—Continued																					
Building construction																					
Special-trade contractors																					
Total: Building construction																					
General contractors																					
Total: Special-trade contractors																					
Plumbing and heating																					
Painting and decorating																					
Electrical work																					
1949: Average.....	\$70.95	36.7	\$1.935	\$67.16	36.2	\$1.855	\$75.70	37.2	\$2.034	\$78.60	38.6	\$2.037	\$70.75	35.7	\$1.982	\$86.57	39.2	\$2.211			
1950: Average.....	73.73	36.3	2.031	68.56	35.8	1.915	77.77	35.9	2.119	81.72	38.4	2.128	71.26	35.4	2.013	89.16	38.4	2.322			
1950: April.....	70.70	35.6	1.906	65.96	35.3	1.809	74.49	35.9	2.075	78.78	37.8	2.084	66.41	34.3	1.942	84.85	37.1	2.287			
May.....	72.93	36.8	1.906	67.87	36.1	1.880	76.95	36.8	2.091	81.14	38.4	2.113	69.05	35.0	1.973	86.18	37.8	2.280			
June.....	73.82	37.0	1.995	68.33	36.6	1.867	77.92	37.3	2.089	82.64	39.0	2.119	69.15	35.3	1.959	87.65	38.4	2.289			
July.....	74.02	36.9	2.006	68.77	36.6	1.879	78.16	37.2	2.101	80.45	38.0	2.117	71.62	36.1	1.964	86.69	37.9	2.285			
August.....	75.90	37.6	2.021	70.87	37.2	1.905	79.72	37.8	2.109	81.56	38.6	2.113	73.33	36.3	2.020	89.16	38.7	2.304			
September.....	75.86	36.7	2.067	70.73	36.2	1.954	79.62	37.0	2.162	83.67	38.4	2.179	72.89	35.8	2.036	92.38	38.7	2.287			
October.....	77.87	37.4	2.082	72.71	37.0	1.965	81.95	37.8	2.168	84.65	38.9	2.176	76.62	36.6	2.062	94.04	39.2	2.399			
November.....	78.07	37.3	2.093	72.94	36.8	1.962	82.00	37.7	2.175	85.08	39.1	2.176	74.93	36.2	2.070	95.01	39.1	2.420			
December.....	77.80	36.7	2.120	71.69	35.7	2.008	82.34	37.4	2.199	86.63	39.1	2.219	74.60	35.9	2.078	96.44	39.7	2.417			
1951: January.....	78.35	36.7	2.135	72.56	36.1	2.010	82.51	37.1	2.224	86.60	38.8	2.232	74.41	36.2	2.114	98.77	39.7	2.486			
February.....	76.14	35.3	2.157	68.75	34.0	2.022	81.49	36.3	2.245	85.99	38.1	2.257	75.44	35.4	2.131	97.42	39.0	2.496			
March.....	80.53	37.0	2.171	75.24	37.3	2.044	83.28	36.8	2.263	89.51	38.9	2.301	75.90	35.6	2.132	99.41	39.3	2.533			
April.....	82.98	38.1	2.178	79.49	39.0	2.038	85.42	37.4	2.294	89.51	38.9	2.301	77.97	35.2	2.154	99.52	39.5	2.515			



TABLE C-1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees<sup>1</sup>-Con.

Year and month	Contract construction-Continued																	
	Building construction-Continued																	
	Special-trade contractors-Continued																	
	Other special-trade contractors			Masonry			Plastering and lath-ing			Carpentry			Roofing and sheet-metal work			Excavation and founda-tion work		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1949: Average.....	\$71.39	36.1	\$1.979	\$68.73	33.8	\$2.033	\$80.39	34.9	\$2.301	\$67.14	36.6	\$1.837	\$62.86	35.7	\$1.759	\$60.66	37.8	\$1.644
1950: Average.....	74.71	35.8	2.087	70.85	33.9	2.000	86.70	35.0	2.477	69.86	37.0	1.888	64.49	35.7	1.827	74.92	38.6	1.941
1950: April.....	71.44	35.0	2.041	67.39	32.2	2.093	83.66	34.7	2.411	64.79	36.5	1.775	61.64	34.3	1.797	73.59	39.1	1.862
May.....	74.46	36.2	2.087	70.98	33.8	2.100	86.96	35.7	2.480	65.58	36.7	1.787	65.05	35.9	1.812	74.10	39.0	1.900
June.....	73.81	36.8	2.060	74.27	35.1	2.116	90.65	36.1	2.511	67.40	37.3	1.807	65.70	36.6	1.795	74.74	39.4	1.897
July.....	76.75	36.9	2.080	73.91	34.7	2.130	91.73	36.2	2.534	67.90	37.7	1.801	65.77	36.4	1.807	73.57	38.7	1.901
August.....	78.57	37.7	2.084	76.50	36.0	2.125	93.11	36.4	2.558	70.50	38.4	1.836	68.50	37.7	1.817	77.26	40.6	1.933
September.....	76.99	36.3	2.110	71.88	33.2	2.165	92.80	36.6	2.538	71.17	38.2	1.865	65.99	36.2	1.823	75.01	38.0	1.974
October.....	79.06	37.1	2.131	77.36	35.6	2.173	93.07	36.2	2.571	71.17	37.4	1.903	68.19	36.8	1.853	78.40	38.6	2.031
November.....	79.07	37.0	2.137	80.53	37.3	2.159	87.49	34.9	2.507	72.80	37.8	1.926	67.64	36.6	1.848	79.97	38.3	2.088
December.....	78.23	36.2	2.161	72.06	33.3	2.164	93.14	35.7	2.609	70.92	35.8	1.961	66.36	35.6	1.864	80.39	38.5	2.068
1951: January.....	77.87	35.9	2.169	73.19	34.3	2.192	87.80	34.4	2.555	71.71	36.2	1.981	66.65	35.3	1.888	81.37	38.6	2.108
February.....	76.32	34.8	2.193	66.22	30.5	2.171	90.88	34.9	2.604	64.98	32.8	1.981	64.58	33.9	1.905	81.28	37.2	2.185
March.....	78.21	35.5	2.203	73.13	33.5	2.183	89.87	34.3	2.620	67.73	33.9	1.998	65.05	33.9	1.919	80.99	37.1	2.183
April.....	82.13	36.5	2.250	77.80	34.8	2.227	93.21	35.7	2.611	73.73	36.3	2.031	68.81	35.8	1.922	82.12	38.5	2.153
	Manufacturing																	
	Total: Manufacturing			Durable goods <sup>2</sup>			Nondurable goods <sup>2</sup>			Total: Ordnance and accessories			Food and kindred products					
													Total: Food and kindred products			Meat products		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1949: Average.....	\$54.92	36.2	\$1.491	\$58.03	36.5	\$1.499	\$51.41	35.8	\$1.325	\$58.76	40.0	\$1.469	\$53.58	41.5	\$1.291	\$57.44	41.5	\$1.384
1950: Average.....	58.33	40.5	1.465	63.32	41.2	1.537	54.71	39.7	1.378	64.79	41.8	1.550	56.07	41.5	1.351	60.07	41.6	1.444
1950: April.....	56.93	39.7	1.454	61.01	40.7	1.499	52.17	38.5	1.355	61.43	40.6	1.613	54.14	40.4	1.340	55.64	39.8	1.368
May.....	57.54	39.9	1.442	61.57	40.8	1.500	52.83	38.9	1.358	61.66	40.7	1.615	54.90	41.0	1.359	57.10	40.7	1.403
June.....	58.85	40.5	1.453	62.84	41.3	1.522	53.92	39.5	1.365	61.90	40.7	1.621	56.01	41.8	1.340	58.11	41.3	1.407
July.....	60.21	40.8	1.462	63.01	41.1	1.533	54.73	39.8	1.375	64.92	42.6	1.624	56.94	42.3	1.346	59.31	41.8	1.419
August.....	60.32	41.2	1.464	64.33	41.8	1.539	55.65	40.5	1.374	66.12	42.6	1.652	56.19	41.9	1.341	57.92	40.7	1.423
September.....	60.64	41.0	1.479	65.14	41.7	1.562	55.30	40.1	1.379	67.41	43.1	1.654	56.36	42.0	1.342	62.59	41.7	1.501
October.....	61.99	41.3	1.501	66.39	42.1	1.577	56.58	40.3	1.404	68.64	43.2	1.659	56.83	41.6	1.366	61.24	40.8	1.501
November.....	62.23	41.1	1.514	66.34	41.8	1.587	57.19	40.3	1.419	70.53	43.4	1.625	58.07	41.9	1.386	65.49	41.4	1.509
December.....	63.88	41.4	1.543	68.32	42.2	1.619	58.44	40.5	1.443	68.34	42.5	1.608	59.85	42.3	1.415	69.92	42.5	1.547
1951: January.....	63.70	41.0	1.555	67.65	41.5	1.630	58.53	40.2	1.456	69.55	42.0	1.656	60.11	41.8	1.438	65.83	42.8	1.538
February.....	63.84	40.9	1.561	68.18	41.6	1.639	58.32	40.0	1.458	70.92	42.7	1.661	59.04	41.0	1.440	60.25	39.9	1.510
March.....	64.57	41.1	1.571	69.26	41.9	1.653	58.55	40.1	1.460	72.59	42.8	1.696	59.31	41.1	1.443	62.11	40.7	1.526
April.....	64.74	41.0	1.579	69.76	42.0	1.661	58.20	39.7	1.466	71.60	42.8	1.673	59.66	41.2	1.448	62.76	41.1	1.527
	Manufacturing-Continued																	
	Food and kindred products-Continued																	
	Meat packing			Sausages and casings			Dairy products			Condensed and evaporated milk			Ice cream and ice			Canning and preserv-ing		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1949: Average.....	\$58.02	41.5	\$1.398	\$57.44	41.9	\$1.371	\$54.61	44.8	\$1.219	\$56.13	45.6	\$1.239	\$55.00	44.9	\$1.225	\$43.77	38.8	\$1.128
1950: Average.....	60.94	41.6	1.465	60.80	42.4	1.434	56.11	44.5	1.261	57.36	45.3	1.258	57.29	44.1	1.209	46.81	39.3	1.191
1950: April.....	56.22	39.7	1.416	57.04	40.6	1.405	54.79	43.9	1.248	56.51	45.5	1.242	56.10	44.0	1.275	44.32	36.3	1.221
May.....	57.55	40.5	1.421	60.87	43.0	1.411	55.02	44.3	1.242	56.61	45.8	1.236	56.20	44.5	1.263	45.01	37.3	1.210
June.....	58.65	41.1	1.427	61.59	43.6	1.408	55.85	45.0	1.241	58.02	46.9	1.237	54.99	43.3	1.270	45.54	38.9	1.181
July.....	59.48	40.5	1.444	60.69	42.8	1.418	56.57	45.0	1.237	58.16	46.6	1.248	57.50	44.2	1.301	47.91	40.6	1.180
August.....	63.77	41.6	1.533	62.45	42.8	1.459	56.81	44.7	1.271	58.59	46.1	1.271	58.43	44.2	1.322	47.18	41.1	1.148
September.....	62.23	40.7	1.529	60.78	41.4	1.468	56.74	44.5	1.275	57.58	45.7	1.260	58.74	44.1	1.332	46.05	40.5	1.211
October.....	66.55	43.3	1.537	63.58	43.2	1.518	56.62	44.1	1.284	57.91	45.1	1.284	58.76	43.4	1.354	48.06	38.6	1.245
November.....	71.48	45.8	1.571	67.23	43.8	1.535	57.68	44.3	1.302	58.90	45.2	1.303	60.79	44.5	1.366	46.82	37.4	1.252
1951: January.....	66.95	43.0	1.557	63.84	42.7	1.542	59.09	44.1	1.340	60.89	45.0	1.353	61.82	44.8	1.380	49.41	38.3	1.290
February.....	61.21	39.9	1.534	61.04	40.0	1.526	59.45	44.1	1.348	61.56	45.1	1.365	62.01	44.2	1.403	48.84	37.8	1.292
March.....	63.99	40.6	1.554	64.37	42.1	1.529	59.99	44.3	1.348	61.93	45.6	1.372	61.86	44.3	1.398	48.10	37.2	1.293
April.....	63.87	41.1	1.554	64.09	41.4	1.548	59.67	44.3	1.347	63.88	46.8	1.365	61.79	44.2	1.398	49.42	38.1	1.297

See footnotes at end of table.



TABLE C-1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees<sup>1</sup>-Con.

Year and month	Manufacturing-Continued														
	Food and kindred products-Continued														
	Grain-mill products			Flour and other grain-mill products			Prepared feeds			Bakery products			Sugar		
	Avg. wkly. earnings	Avg. hours	Avg. wkly. earnings	Avg. wkly. earnings	Avg. hours	Avg. wkly. earnings	Avg. wkly. earnings	Avg. hours	Avg. wkly. earnings	Avg. wkly. earnings	Avg. hours	Avg. wkly. earnings	Avg. wkly. earnings	Avg. hours	Avg. wkly. earnings
1949: Average.....	\$56.94	43.8	\$1,300	\$58.01	44.7	\$1,318	\$54.96	40.2	\$1,190	\$51.67	41.7	\$1,229	\$56.01	42.4	\$1,321
1950: Average.....	59.02	43.3	1,363	60.95	44.1	1,382	57.21	45.3	1,263	53.54	41.8	1,290	59.94	43.0	1,394
1950: April.....	55.82	42.1	1,321	56.16	42.1	1,334	56.06	45.5	1,232	52.37	41.2	1,271	55.32	39.4	1,404
May.....	56.35	42.4	1,329	57.36	42.9	1,337	55.72	44.0	1,241	53.12	41.6	1,277	57.89	41.4	1,391
June.....	58.47	43.9	1,332	58.51	43.5	1,345	57.63	46.7	1,234	53.21	41.9	1,270	59.23	42.4	1,397
July.....	60.60	44.3	1,368	61.86	44.6	1,387	60.96	47.7	1,278	53.88	41.7	1,292	66.36	42.7	1,452
August.....	63.65	45.4	1,402	67.35	46.8	1,439	57.62	45.3	1,272	54.34	41.8	1,300	64.64	45.3	1,427
September.....	61.34	44.0	1,394	64.06	45.5	1,421	59.14	45.7	1,294	53.85	41.2	1,307	63.54	43.7	1,454
October.....	59.97	43.3	1,385	60.85	43.4	1,402	59.89	46.0	1,302	54.19	41.4	1,309	56.90	41.9	1,358
November.....	59.78	42.7	1,400	61.42	43.5	1,412	59.00	44.7	1,320	54.47	41.3	1,319	61.10	45.7	1,337
December.....	63.60	44.2	1,439	66.55	45.8	1,453	61.10	45.6	1,340	55.04	41.6	1,323	63.43	45.7	1,388
1951: January.....	64.92	44.8	1,449	68.02	46.4	1,466	61.42	45.6	1,347	54.68	41.3	1,324	60.36	40.4	1,404
February.....	63.58	43.7	1,455	65.03	45.0	1,445	59.08	44.2	1,357	55.49	41.5	1,337	61.93	40.8	1,518
March.....	64.94	44.6	1,456	63.33	44.1	1,436	59.88	43.9	1,364	55.58	41.6	1,326	59.20	39.6	1,495
April.....	65.62	45.1	1,455	63.06	44.1	1,430	61.83	45.1	1,371	56.08	41.6	1,348	60.45	39.9	1,515
Year and month	Manufacturing-Continued														
	Food and kindred products-Continued														
	Beet sugar			Confectionery and related products			Confectionery			Beverages			Bottled soft drinks		
	Avg. wkly. earnings	Avg. hours	Avg. wkly. earnings	Avg. wkly. earnings	Avg. hours	Avg. wkly. earnings	Avg. wkly. earnings	Avg. hours	Avg. wkly. earnings	Avg. wkly. earnings	Avg. hours	Avg. wkly. earnings	Avg. wkly. earnings	Avg. hours	Avg. wkly. earnings
1949: Average.....	\$56.09	42.3	\$1,326	\$45.12	40.0	\$1,128	\$42.63	39.8	\$1,071	\$64.21	41.0	\$1,566	\$48.40	43.8	\$1,105
1950: Average.....	58.69	42.5	1,381	46.72	39.9	1,171	44.81	39.9	1,123	67.49	41.0	1,646	49.12	42.9	1,145
1950: April.....	57.74	39.6	1,458	43.77	37.9	1,155	41.59	37.8	1,106	66.38	40.7	1,631	47.90	42.5	1,127
May.....	53.25	37.7	1,386	43.36	39.1	1,180	43.56	39.0	1,117	66.71	41.1	1,625	48.64	42.2	1,136
June.....	54.29	39.2	1,385	46.37	39.6	1,171	44.36	39.4	1,126	68.96	42.0	1,642	51.29	44.1	1,163
July.....	56.37	38.9	1,449	45.96	38.8	1,185	44.16	38.6	1,144	71.11	42.3	1,681	50.34	43.1	1,168
August.....	58.01	40.8	1,383	47.99	40.5	1,185	45.82	40.3	1,137	68.39	41.3	1,656	49.78	43.1	1,155
September.....	58.04	40.9	1,419	49.55	41.5	1,195	47.13	41.2	1,144	67.86	41.2	1,647	49.53	42.7	1,160
October.....	57.35	42.8	1,340	49.09	41.0	1,198	47.19	41.0	1,151	68.14	41.0	1,662	49.92	43.0	1,151
November.....	62.07	47.6	1,346	48.15	40.5	1,189	47.10	41.1	1,146	67.81	40.9	1,628	50.30	43.1	1,167
December.....	62.06	45.1	1,378	47.71	40.4	1,181	47.30	41.6	1,137	68.78	40.6	1,694	50.36	42.9	1,174
1951: January.....	57.24	38.6	1,463	49.49	40.4	1,225	48.33	41.1	1,176	71.61	41.2	1,738	50.25	42.8	1,174
February.....	61.51	40.6	1,515	49.31	39.7	1,242	47.44	39.9	1,180	71.13	40.3	1,795	50.53	42.5	1,189
March.....	59.20	39.0	1,518	48.86	39.5	1,237	46.97	39.7	1,183	71.78	40.6	1,798	50.77	42.7	1,189
April.....	69.38	43.5	1,595	48.80	38.8	1,250	46.68	38.9	1,200	71.49	40.3	1,774	50.79	42.9	1,184
Year and month	Manufacturing-Continued														
	Food and kindred products-Continued						Tobacco manufactures								
	Distilled, rectified, and blended liquors			Miscellaneous food products			Total: Tobacco manufactures			Cigarettes			Cigars		
	Avg. wkly. earnings	Avg. hours	Avg. wkly. earnings	Avg. wkly. earnings	Avg. hours	Avg. wkly. earnings	Avg. wkly. earnings	Avg. hours	Avg. wkly. earnings	Avg. wkly. earnings	Avg. hours	Avg. wkly. earnings	Avg. wkly. earnings	Avg. hours	Avg. wkly. earnings
1949: Average.....	\$57.00	39.2	\$1,454	\$52.17	41.9	\$1,245	\$37.25	37.1	\$1,064	\$44.33	37.7	\$1,229	\$32.41	36.7	\$1,084
1950: Average.....	61.94	40.3	1,537	54.90	42.2	1,305	41.08	37.9	1,084	50.19	38.0	1,287	35.76	36.9	1,099
1950: April.....	57.66	38.8	1,486	53.15	41.3	1,290	38.80	35.5	1,087	48.41	38.0	1,274	31.38	33.0	1,051
May.....	57.47	38.7	1,485	53.16	41.6	1,278	39.67	36.7	1,081	47.99	37.7	1,273	34.49	36.5	1,090
June.....	59.35	39.7	1,495	54.82	42.2	1,299	41.59	38.3	1,096	51.21	40.1	1,277	35.49	37.2	1,094
July.....	59.51	39.2	1,518	56.15	42.8	1,312	42.12	38.4	1,097	52.80	40.6	1,293	35.11	38.6	1,054
August.....	66.00	41.8	1,579	56.50	43.0	1,314	43.37	39.5	1,098	57.94	43.6	1,329	36.11	37.8	1,093
September.....	65.18	42.0	1,552	56.16	43.0	1,306	42.02	39.2	1,072	50.86	39.6	1,275	37.57	38.1	1,096
October.....	64.95	40.8	1,592	56.06	42.6	1,316	41.21	38.3	1,076	45.10	38.4	1,274	39.35	39.0	1,099
November.....	63.31	41.6	1,570	56.44	42.5	1,328	42.45	37.8	1,123	50.07	37.9	1,321	39.80	38.5	1,096
December.....	66.46	41.8	1,590	56.85	42.3	1,344	43.72	38.9	1,124	54.11	40.2	1,346	38.40	38.1	1,098
1951: January.....	73.85	43.8	1,686	58.54	42.3	1,394	44.12	38.7	1,140	55.20	40.5	1,363	38.09	37.6	1,013
February.....	69.53	41.2	1,665	59.08	42.2	1,400	43.17	37.9	1,130	52.76	39.4	1,339	38.10	37.8	1,016
March.....	66.05	39.2	1,685	58.14	41.8	1,391	41.99	36.8	1,141	48.57	36.3	1,338	37.91	37.2	1,019
April.....	67.24	39.0	1,724	58.47	41.5	1,409	42.66	36.9	1,156	50.59	37.2	1,360	37.89	37.0	1,024

See footnote at end of table.



TABLE C-1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees <sup>1</sup>—Con.

Year and month	Manufacturing—Continued																			
	Tobacco manufac- tures—Con.			Textile-mill products																
	Tobacco stemming and redrying			Total: Textile-mill products			Yarn and thread mills			Yarn mills			Broad-woven fabric mills			Cotton, silk, syn- thetic fiber				
																United States				
	Avg. wkly. earn- ings	Avg. wkly. hours	Avg. hrly. earn- ings	Avg. wkly. earn- ings	Avg. wkly. hours	Avg. hrly. earn- ings	Avg. wkly. earn- ings	Avg. wkly. hours	Avg. hrly. earn- ings	Avg. wkly. earn- ings	Avg. wkly. hours	Avg. hrly. earn- ings	Avg. wkly. earn- ings	Avg. wkly. hours	Avg. hrly. earn- ings	Avg. wkly. earn- ings	Avg. wkly. hours	Avg. hrly. earn- ings		
1949: Average.....	\$34.20	38.3	\$0.893	\$44.83	37.7	\$1.189	\$40.51	38.4	\$1.113	\$40.55	36.3	\$1.117	\$44.48	37.5	\$1.186	\$42.80	37.2	\$1.183		
1950: Average.....	37.59	39.4	.934	48.95	39.6	1.236	45.01	38.9	1.157	45.09	38.8	1.162	49.28	40.1	1.229	48.00	40.1	1.195		
1950: April.....	39.14	38.0	1.030	45.51	37.8	1.204	40.80	38.4	1.121	40.65	38.1	1.126	45.81	38.4	1.193	44.66	38.4	1.163		
May.....	37.19	38.5	1.019	45.63	37.9	1.204	41.62	38.9	1.128	41.77	38.8	1.135	45.82	38.5	1.190	44.25	38.3	1.158		
June.....	40.11	38.6	1.099	46.75	38.7	1.208	42.68	37.8	1.129	42.79	37.7	1.133	46.92	39.2	1.197	45.24	38.9	1.163		
July.....	40.16	39.1	1.027	47.27	39.0	1.212	43.24	38.2	1.132	43.38	38.1	1.138	47.32	39.5	1.203	45.90	39.3	1.168		
August.....	35.24	38.1	.925	49.33	40.5	1.218	44.96	39.4	1.141	45.34	39.6	1.145	49.29	40.8	1.208	47.86	40.7	1.176		
September.....	39.26	43.1	.911	49.98	40.7	1.228	46.40	40.1	1.157	46.56	40.0	1.164	49.90	41.1	1.214	48.62	41.1	1.183		
October.....	37.37	41.3	.907	52.88	40.6	1.295	49.33	40.2	1.227	48.16	40.0	1.229	53.17	40.9	1.300	52.29	41.3	1.266		
November.....	34.53	35.6	.970	53.19	40.7	1.207	49.57	40.3	1.220	49.61	40.2	1.234	53.68	41.1	1.306	52.62	41.4	1.271		
December.....	38.52	40.0	.963	53.57	40.8	1.313	49.90	40.6	1.229	49.90	40.5	1.232	54.36	41.4	1.313	53.33	41.7	1.279		
1951: January.....	38.79	39.7	.977	53.59	40.6	1.320	49.61	40.5	1.225	49.73	40.4	1.231	54.39	41.3	1.317	53.37	41.6	1.283		
February.....	35.85	34.7	1.033	53.94	40.8	1.322	50.02	40.6	1.232	49.98	40.5	1.234	54.22	41.2	1.316	53.54	41.7	1.284		
March.....	37.20	34.7	1.072	53.34	40.5	1.317	49.89	40.4	1.235	49.80	40.3	1.238	53.77	41.2	1.305	53.20	41.4	1.285		
April.....	39.17	35.9	1.091	52.81	39.8	1.327	49.72	40.1	1.240	50.01	40.2	1.244	53.98	40.8	1.323	52.85	41.0	1.289		
Manufacturing—Continued																				
Textile-mill products—Continued																				
Cotton, silk, synthetic fiber—Continued						Woolen and worsted			Knitting mills			Full-fashioned hosiery								
North			South									United States			North					
1949: Average.....	\$46.36	38.0	\$1.220	\$41.92	37.0	\$1.133	\$51.19	38.9	\$1.216	\$41.47	36.8	\$1.127	\$52.09	37.5	\$1.389	\$53.98	36.9	\$1.463		
1950: Average.....	51.23	40.5	1.263	47.08	40.0	1.177	54.01	39.8	1.357	44.13	47.4	1.180	53.63	37.9	1.415	54.25	37.7	1.459		
1950: April.....	47.96	38.1	1.227	43.70	38.2	1.144	50.94	38.8	1.313	40.60	35.0	1.160	49.02	35.6	1.377	48.82	35.4	1.379		
May.....	47.74	39.0	1.224	43.40	38.1	1.139	51.94	39.5	1.315	40.67	35.0	1.162	49.76	36.4	1.367	49.90	36.4	1.371		
June.....	48.27	39.4	1.225	44.31	38.7	1.145	53.36	40.3	1.324	41.85	36.2	1.156	50.62	37.3	1.357	50.42	37.4	1.348		
July.....	49.03	39.5	1.232	45.08	39.2	1.150	53.51	40.2	1.331	42.77	37.0	1.156	52.06	38.0	1.370	50.73	37.3	1.390		
August.....	50.80	41.0	1.239	46.97	40.6	1.157	54.21	40.7	1.332	45.67	39.2	1.165	54.94	39.7	1.384	55.06	39.7	1.387		
September.....	51.58	41.1	1.255	47.83	41.2	1.161	54.81	40.9	1.340	45.63	38.9	1.173	54.35	39.1	1.390	54.12	39.3	1.377		
October.....	54.94	41.5	1.348	51.25	41.3	1.241	56.30	39.1	1.440	47.67	39.2	1.216	57.87	39.8	1.465	58.52	39.3	1.469		
November.....	56.16	41.6	1.450	51.50	41.3	1.247	58.08	40.0	1.452	47.91	38.7	1.238	58.73	39.1	1.502	60.29	39.1	1.542		
December.....	56.37	41.6	1.355	52.46	41.8	1.255	58.39	40.1	1.456	47.24	38.1	1.240	57.41	38.3	1.495	57.87	37.8	1.531		
1951: January.....	56.61	41.5	1.394	52.25	41.6	1.256	58.66	40.3	1.461	47.94	37.9	1.265	59.25	38.3	1.547	61.01	37.5	1.627		
February.....	57.08	41.6	1.372	52.46	41.7	1.258	57.10	39.3	1.453	49.24	38.8	1.260	61.11	39.2	1.559	63.05	38.4	1.642		
March.....	56.02	40.8	1.373	52.37	41.6	1.259	58.19	40.3	1.444	48.43	38.1	1.271	60.41	38.6	1.565	63.13	38.1	1.657		
April.....	59.40	40.3	1.474	59.40	40.3	1.474	66.72	36.7	1.273	57.38	36.5	1.572	.....	.....	.....	.....	.....	.....		
Manufacturing—Continued																				
Textile-mill products—Continued																				
Full-fashioned hosiery—Continued						Seamless hosiery						Knit outerwear						Knit underwear		
South			United States			North			South											
1949: Average.....	\$50.31	38.2	\$1.317	\$31.45	35.5	\$0.886	\$35.96	37.7	\$0.930	\$30.78	35.1	\$0.877	\$40.96	38.1	\$1.075	\$36.34	36.2	\$1.064		
1950: Average.....	53.33	38.2	1.396	34.94	35.8	.976	38.12	38.2	.968	34.37	35.4	.971	43.73	38.6	1.133	39.60	37.5	1.056		
1950: April.....	49.09	35.7	1.375	31.78	32.8	.969	35.90	36.6	.961	31.01	32.1	.966	43.05	38.2	1.127	35.71	34.5	1.035		
May.....	49.61	36.4	1.363	31.17	32.2	.968	36.47	37.1	.963	30.11	31.2	.965	42.75	37.9	1.128	35.26	34.0	1.037		
June.....	50.82	37.2	1.366	33.13	34.5	.966	36.83	37.5	.982	32.42	33.7	.992	43.42	38.7	1.122	36.30	35.0	1.041		
July.....	53.19	38.6	1.378	33.36	35.0	.993	35.88	36.8	.975	32.93	34.7	.949	42.14	37.9	1.112	38.31	36.8	1.041		
August.....	54.83	39.7	1.381	37.11	38.1	.974	39.42	39.5	.968	36.63	37.8	.969	43.90	39.3	1.117	41.17	39.4	1.045		
September.....	54.08	39.0	1.402	36.98	37.5	.986	39.62	39.0	1.016	36.40	37.2	.980	42.75	38.0	1.125	42.63	40.1	1.053		
October.....	57.18	39.6	1.444	38.08	37.7	1.010	40.35	39.1	1.032	37.59	37.4	1.005	46.43	40.2	1.155	43.43	39.7	1.094		
November.....	57.47	39.2	1.466	38.31	37.6	1.019	41.89	39.5	1.053	37.65	37.2	1.012	46.10	39.4	1.170	43.06	39.0	1.104		
December.....	57.28	39.1	1.465	37.65	36.8	1.023	41.25	39.1	1.055	36.98	36.4	1.016	45.42	38.2	1.189	43.11	38.8	1.111		
1951: January.....	57.65	39.8	1.482	37.73	36.6	1.031	40.95	38.4	1.066	37.21	36.3	1.025	47.46	38.9	1.220	43.13	38.3	1.126		
February.....	59.38	39.8	1.492	38.79	37.3	1.040	41.90	38.8	1.080	38.15	37.0	1.031	48.30	39.4	1.226	44.29	39.4	1.124		
March.....	58.04	38.9	1.492	38.39	36.7	1.046	41.99	38.7	1.085	37.61	36.3	1.036	47.21	38.6	1.223	44.08	38.8	1.136		
April.....	.....	.....	.....	35.70	34.2	1.044	.....	.....	.....	.....	.....	.....	47.39	38.4	1.234	43.51	38.3	1.136		

See footnotes at end of table.



TABLE C-1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees<sup>1</sup>-Con.

Year and month	Manufacturing-Continued															Apparel and other finished textile products		
	Textile-mill products-Continued															Total: Apparel and other finished textile products		
	Dyeing and finishing textiles			Carpets, rugs, other floor coverings			Wool carpets, rugs, and carpet yarn			Other textile-mill products			Fur-felt hats and hat bodies					
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings			
1949: Average.....	\$51.50	40.3	\$1.278	\$56.80	39.5	\$1.438	\$56.73	38.7	\$1.453	\$47.60	38.9	\$1.231	\$49.21	35.3	\$1.394	\$41.89	35.8	\$1.170
1950: Average.....	53.87	40.9	1.317	62.33	41.5	1.502	62.72	41.1	1.526	52.37	40.5	1.290	51.05	35.9	1.422	43.68	36.4	1.200
1950: April.....	50.89	39.8	1.285	59.15	40.4	1.464	60.49	40.4	1.497	49.29	39.4	1.251	49.02	35.0	1.380	40.80	35.2	1.160
May.....	49.25	38.3	1.285	60.61	41.2	1.471	61.68	41.2	1.495	48.55	39.2	1.255	48.72	34.6	1.408	41.27	35.7	1.150
June.....	51.18	39.8	1.290	61.17	41.5	1.474	61.90	41.3	1.501	51.44	40.5	1.270	52.69	37.0	1.424	41.89	35.8	1.179
July.....	50.84	39.5	1.287	59.86	40.5	1.478	60.07	40.1	1.498	51.92	40.5	1.282	52.19	36.7	1.422	43.22	36.2	1.124
August.....	50.08	42.9	1.306	61.44	41.4	1.484	61.46	40.7	1.510	53.16	41.4	1.284	54.44	38.1	1.429	45.08	37.6	1.295
September.....	52.78	42.6	1.309	62.94	41.6	1.513	62.19	40.7	1.528	55.37	40.9	1.305	50.67	35.8	1.421	43.09	35.7	1.207
October.....	55.26	41.4	1.359	66.46	42.6	1.580	66.36	42.0	1.580	54.77	40.9	1.329	50.48	35.5	1.422	45.01	37.3	1.220
November.....	58.19	41.8	1.392	66.82	42.4	1.576	66.63	41.8	1.594	55.88	41.3	1.353	51.98	36.1	1.440	44.70	36.9	1.206
December.....	58.88	42.0	1.402	67.28	42.1	1.598	66.90	41.4	1.616	56.59	41.7	1.357	56.83	38.4	1.480	45.88	36.5	1.257
1951: January.....	59.13	41.7	1.418	65.91	41.4	1.592	65.65	40.7	1.613	56.83	41.6	1.366	58.08	38.5	1.497	47.42	36.9	1.285
February.....	60.12	42.4	1.418	67.25	41.9	1.605	66.30	41.0	1.617	56.11	40.9	1.372	59.45	39.4	1.509	48.38	37.5	1.290
March.....	58.27	41.3	1.411	66.65	41.4	1.610	65.21	40.3	1.618	56.50	41.3	1.368	56.10	37.5	1.496	47.15	37.3	1.294
April.....	56.15	39.6	1.418	64.56	40.1	1.610	62.58	38.8	1.613	55.44	40.5	1.369	51.31	33.8	1.518	45.04	36.5	1.234
Manufacturing-Continued																		
Apparel and other finished textile products-Continued																		
	Men's and boys' suits and coats			Men's and boys' furnishings and work clothing			Shirts, collars, and nightwear			Separate trousers			Work shirts			Women's outerwear		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1949: Average.....	\$46.67	34.7	\$1.345	\$33.30	36.2	\$0.920	\$33.37	36.0	\$0.927	\$34.91	35.7	\$0.978	\$27.44	35.5	\$0.773	\$49.69	34.7	\$1.433
1950: Average.....	50.22	36.9	1.361	36.43	36.8	1.000	36.26	36.7	1.008	36.43	37.5	1.043	31.34	35.9	1.073	49.41	34.7	1.434
1950: April.....	47.46	35.8	1.337	35.00	35.5	0.986	35.02	35.7	0.981	36.33	38.0	1.035	29.75	34.0	0.875	48.06	34.8	1.335
May.....	48.92	36.7	1.333	35.29	35.9	0.983	34.81	35.7	0.975	39.81	38.1	1.045	31.18	35.8	0.871	48.57	34.6	1.317
June.....	48.90	36.7	1.335	35.55	36.2	0.982	34.82	35.6	0.978	36.34	37.9	1.038	30.66	35.4	0.885	48.87	35.8	1.357
July.....	49.22	36.9	1.334	35.34	36.1	0.979	34.55	35.4	0.978	38.52	37.4	1.030	31.52	36.1	0.873	49.62	34.7	1.430
August.....	51.08	37.7	1.355	37.43	38.0	0.985	36.71	37.5	0.979	40.08	38.5	1.041	33.00	37.8	0.873	54.01	36.2	1.402
September.....	47.75	35.4	1.349	37.18	37.4	0.984	37.20	37.5	0.992	38.45	38.9	1.042	32.03	37.2	0.888	46.43	32.2	1.443
October.....	51.77	37.9	1.366	38.38	38.3	1.002	38.02	38.4	0.990	40.91	38.7	1.057	32.95	36.9	0.903	50.94	34.7	1.476
November.....	52.57	37.9	1.387	38.53	37.7	1.022	39.35	38.2	1.030	40.32	38.0	1.061	32.18	35.6	0.904	48.37	34.6	1.498
December.....	55.57	37.7	1.474	38.59	37.0	1.043	39.42	37.4	1.054	40.41	36.8	1.098	33.10	35.9	1.022	51.84	35.1	1.477
1951: January.....	55.23	37.6	1.469	39.11	37.0	1.057	39.09	36.6	1.068	41.78	37.4	1.117	33.38	36.2	1.022	55.01	36.0	1.528
February.....	56.32	38.0	1.482	39.68	37.4	1.061	39.87	37.3	1.069	43.08	38.6	1.116	33.65	36.2	1.013	56.08	36.7	1.526
March.....	56.95	38.4	1.493	39.99	37.8	1.058	40.19	37.7	1.066	43.57	38.9	1.120	34.65	37.7	1.019	52.52	36.0	1.459
April.....	54.76	37.2	1.472	38.86	36.9	1.053	39.22	37.0	1.060	42.15	37.8	1.115	33.23	36.6	1.008	48.58	35.2	1.390
Manufacturing-Continued																		
Apparel and other finished textile products-Continued																		
	Women's dresses			Household apparel			Women's suits, coats, and skirts			Women's and children's undergarments			Underwear and nightwear, except corsets			Millinery		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1949: Average.....	\$47.20	34.4	\$1.372	\$32.23	36.5	\$0.883	\$46.58	33.8	\$1.064	\$35.79	36.8	\$0.978	\$34.08	36.1	\$0.944	\$55.55	35.3	\$1.517
1950: Average.....	48.09	34.8	1.382	34.66	36.1	0.900	63.77	33.6	1.008	38.38	36.9	1.040	36.55	36.4	1.004	54.21	35.2	1.540
1950: April.....	46.44	35.7	1.355	34.99	36.6	0.896	61.19	29.1	1.759	38.22	35.2	1.029	34.09	34.3	0.994	44.91	30.7	1.493
May.....	48.71	35.3	1.380	35.31	36.4	0.970	60.13	29.7	1.668	38.15	35.2	1.027	33.69	34.1	0.968	46.06	31.7	1.453
June.....	48.60	34.1	1.340	32.92	33.7	0.977	58.41	33.9	1.722	38.43	35.4	1.023	34.25	34.6	0.990	49.72	33.1	1.802
July.....	48.53	34.7	1.312	32.27	33.2	0.972	60.46	35.5	1.872	37.13	36.3	1.029	35.60	36.0	0.999	80.62	33.7	1.802
August.....	50.23	38.7	1.407	34.64	36.2	0.957	73.26	37.0	1.990	40.04	38.5	1.040	38.24	38.2	1.011	62.09	38.8	1.600
September.....	44.37	31.9	1.391	35.28	36.6	0.994	57.91	36.1	1.924	38.95	37.8	1.057	38.35	37.6	1.020	53.16	32.9	1.802
October.....	47.66	33.6	1.410	36.43	37.4	0.974	66.25	33.8	1.990	41.70	39.1	1.098	40.16	38.8	1.035	53.27	34.0	1.822
November.....	47.37	34.2	1.385	36.94	37.5	0.977	60.12	32.1	1.873	40.96	38.1	1.072	39.25	37.6	1.044	47.53	31.6	1.804
December.....	49.81	35.2	1.415	35.88	38.9	0.991	67.07	34.2	1.961	39.28	36.3	1.085	37.10	35.5	1.045	51.82	33.8	1.833
1951: January.....	51.91	35.9	1.446	36.60	36.2	1.011	72.20	35.6	2.028	40.85	36.9	1.107	38.34	36.1	1.062	61.60	38.0	1.621
February.....	52.56	36.3	1.468	39.74	37.8	1.027	73.39	35.8	2.050	42.81	38.5	1.112	40.84	38.2	1.069	68.84	41.1	1.675
March.....	52.20	36.3	1.438	40.16	39.1	1.027	63.31	32.7	1.936	42.44	38.3	1.108	40.26	37.8	1.065	61.29	38.0	1.613
April.....	50.90	35.1	1.450	39.13	38.1	1.027	54.68	31.0	1.764	41.25	37.2	1.109	39.45	36.9	1.069	52.56	38.2	1.856

See footnotes at end of table.



TABLE C-1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees<sup>1</sup>—Con.

Year and month	Manufacturing—Continued																		Lumber and wood products (except furniture)				
	Apparel and other finished textile products—Continued																						
	Children's outerwear			Fur goods and miscellaneous apparel			Other fabricated textile products			Curtains and draperies			Textile bags			Total: Lumber and wood products (except furniture)							
	Avg. wily. earnings	Avg. wily. hours	Avg. hily. earnings	Avg. wily. earnings	Avg. wily. hours	Avg. hily. earnings	Avg. wily. earnings	Avg. wily. hours	Avg. hily. earnings	Avg. wily. earnings	Avg. wily. hours	Avg. hily. earnings	Avg. wily. earnings	Avg. wily. hours	Avg. hily. earnings								
1949: Average.....	\$37.06	35.3	\$1.021	\$42.05	36.0	\$1.168	\$39.74	38.1	\$1.043							\$31.72	40.6	\$1.274					
1950: Average.....	38.98	35.5	1.068	43.45	36.7	1.184	42.06	38.2	1.101							55.31	41.0	1.349					
1950: April.....	35.97	35.3	1.019	39.33	34.9	1.127	39.81	37.1	1.073							53.96	40.7	1.311					
May.....	37.48	36.4	1.029	41.70	35.7	1.168	40.77	37.4	1.090							54.38	40.7	1.326					
June.....	38.08	36.3	1.040	42.59	35.7	1.193	42.21	38.3	1.102							56.28	41.6	1.333					
July.....	39.13	36.6	1.069	43.85	36.4	1.205	42.61	39.7	1.101							56.27	41.1	1.358					
August.....	40.92	37.2	1.100	45.84	38.2	1.200	43.43	39.3	1.106							58.30	42.0	1.388					
September.....	38.12	35.3	1.080	44.89	37.1	1.202	43.88	38.8	1.131	\$37.33	36.6	\$1.020	\$43.95	39.4	\$1.115	57.84	41.2	1.404					
October.....	40.48	37.0	1.064	47.91	38.7	1.228	43.45	39.0	1.114	39.82	38.4	1.037	44.19	39.6	1.116	58.83	41.9	1.404					
November.....	39.29	37.0	1.062	46.06	37.5	1.228	42.68	38.1	1.123	38.31	36.8	1.041	43.30	38.9	1.113	57.03	41.0	1.391					
December.....	40.26	36.3	1.109	45.09	36.9	1.222	43.55	38.3	1.137	36.29	37.6	1.045	43.90	39.2	1.120	57.59	41.4	1.391					
1951: January.....	42.18	36.9	1.143	44.58	36.1	1.235	44.23	38.7	1.143	39.83	37.9	1.048	44.64	39.4	1.133	55.73	40.5	1.376					
February.....	42.70	37.1	1.151	44.96	36.9	1.219	44.12	38.6	1.143	39.03	37.6	1.062	44.73	39.2	1.141	56.13	40.5	1.386					
March.....	40.95	36.4	1.125	45.44	37.0	1.228	44.01	38.3	1.149	38.41	36.2	1.064	45.16	38.9	1.161	55.78	40.6	1.374					
April.....	40.85	36.6	1.116	44.92	36.7	1.224	43.11	37.1	1.162	38.13	35.5	1.074	43.31	37.4	1.158	59.82	41.8	1.431					
Manufacturing—Continued																							
Lumber and wood products (except furniture)—Continued																							
Logging camps and contractors			Sawmills and planing mills			Sawmills and planing mills, general									Millwork, plywood, and prefabricated structural wood products								
						United States			South			West											
1949: Average.....	\$61.31	39.1	\$1.568	\$52.37	40.6	\$1.290	\$53.06	40.6	\$1.307	\$53.66	42.1	\$0.847	\$67.12	38.8	\$1.730	\$55.06	41.9	\$1.314					
1950: Average.....	66.25	38.9	1.703	54.95	40.7	1.350	55.53	40.5	1.371	58.90	42.1	.924	70.43	38.7	1.820	60.52	43.2	1.401					
1950: April.....	55.31	39.2	1.666	53.10	40.5	1.311	53.73	40.4	1.330	57.97	41.5	.915	67.82	39.0	1.739	59.00	43.0	1.372					
May.....	67.37	39.7	1.697	54.19	40.5	1.338	54.86	40.4	1.358	58.11	41.6	.916	69.07	39.0	1.771	59.25	43.0	1.378					
June.....	67.85	39.7	1.709	56.08	41.6	1.348	56.95	41.6	1.369	59.19	42.5	.922	73.95	40.4	1.830	61.27	43.7	1.402					
July.....	68.04	39.4	1.727	55.95	40.9	1.369	55.67	40.8	1.389	58.98	42.1	.926	72.74	39.3	1.851	59.83	42.9	1.395					
August.....	73.98	41.1	1.800	57.95	41.9	1.383	58.49	41.6	1.406	60.13	43.2	.929	74.28	40.0	1.857	61.55	42.8	1.415					
September.....	70.07	38.8	1.806	57.69	41.0	1.407	58.49	40.9	1.430	59.63	42.2	.936	74.33	39.1	1.901	62.06	43.4	1.430					
October.....	70.31	38.8	1.812	58.56	41.8	1.401	59.34	41.7	1.423	61.25	43.6	.946	74.82	39.4	1.899	63.17	44.0	1.448					
November.....	65.40	37.2	1.758	56.53	40.7	1.389	57.15	40.5	1.411	60.34	42.6	.947	72.95	38.5	1.865	63.12	43.5	1.451					
December.....	66.87	38.9	1.719	56.83	41.0	1.386	57.49	40.8	1.409	60.79	42.8	.953	73.68	38.7	1.904	64.84	43.9	1.477					
1951: January.....	61.99	37.3	1.692	54.84	40.0	1.371	55.54	39.9	1.392	60.11	42.0	.955	70.73	37.5	1.886	63.47	42.8	1.483					
February.....	64.10	38.2	1.678	55.30	39.9	1.386	56.00	39.8	1.407	60.05	41.5	.963	71.71	37.9	1.892	63.88	42.9	1.489					
March.....	58.55	35.7	1.640	55.06	40.1	1.373	55.62	39.9	1.394	61.04	42.4	.968	69.22	36.8	1.881	64.82	43.3	1.497					
April.....	78.13	40.8	1.866	59.04	41.4	1.426	59.95	41.4	1.448							65.34	43.5	1.502					
Manufacturing—Continued																							
Lumber and wood products (except furniture)—Continued																							
Lumber and wood products (except furniture)—Continued												Furniture and fixtures											
Millwork				Wooden containers				Wooden boxes, other than cigar				Miscellaneous wood products				Total: Furniture and fixtures				Household furniture			
1949: Average.....	\$54.23	42.2	\$1.285	\$41.90	40.6	\$1.032	\$42.48	41.0	\$1.036	\$44.16	40.7	\$1.085	\$49.48	40.1	\$1.234	\$47.04	39.8	\$1.182					
1950: Average.....	59.06	43.2	1.367	46.03	40.7	1.311	46.56	41.5	1.122	47.07	41.4	1.137	53.67	41.9	1.281	51.91	41.9	1.229					
1950: April.....	57.46	42.7	1.348	43.81	39.9	1.098	44.87	41.2	1.080	45.23	40.8	1.111	51.67	41.3	1.251	49.85	41.2	1.210					
May.....	57.83	42.9	1.344	44.47	40.1	1.109	44.79	40.9	1.085	44.89	40.3	1.114	51.80	41.2	1.250	50.14	41.4	1.211					
June.....	59.69	43.7	1.366	46.48	40.7	1.142	47.13	41.6	1.133	46.16	41.1	1.123	52.50	41.8	1.256	50.71	41.7	1.216					
July.....	58.57	43.1	1.359	47.68	41.0	1.163	48.40	41.8	1.158	46.88	41.3	1.135	52.03	41.0	1.269	49.63	40.6	1.220					
August.....	59.39	43.1	1.378	48.10	41.5	1.159	48.57	42.2	1.151	48.35	42.3	1.143	54.87	42.8	1.282	52.91	42.7	1.259					
September.....	60.63	43.4	1.397	47.50	40.7	1.167	47.64	41.5	1.146	49.10	42.4	1.158	55.42	42.6	1.301	53.94	42.7	1.261					
October.....	61.81	43.9	1.408	48.74	41.8	1.166	49.31	42.8	1.152	49.80	42.6	1.169	56.27	42.6	1.321	54.57	42.7	1.278					
November.....	61.82	43.6	1.411	48.50	41.7	1.163	49.16	42.6	1.154	50.07	42.5	1.178	56.87	42.6	1.335	55.30	42.7	1.295					
December.....	61.89	43.4	1.426	48.43	41.5	1.167	49.43	42.8	1.155	50.16	42.4	1.183	56.77	42.3	1.342	54.78	42.2	1.298					
1951: January.....	60.09	42.2	1.424	48.31	41.4	1.167	49.37	42.6	1.159	50.51	42.2	1.197	56.93	41.8	1.362	54.75	41.7	1.313					
February.....	60.15	41.8	1.439	47.72	41.1	1.161	49.26	42.8	1.151	50.23	42.1	1.193	58.15	42.2	1.378	55.78	42.0	1.328					
March.....	61.32	42.2	1.453	48.35	41.5	1.165	49.40	42.7	1.157	50.83	42.3	1.196	58.94	42.4	1.390	56.85	42.3	1.344					
April.....	62.11	42.6	1.458	48.66	41.8	1.164	49.42	42.9	1.152	51.86	43.0	1.206	57.47	41.2	1.395	54.21	40.7	1.332					

See footnotes at end of table.



TABLE C-1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees <sup>1</sup>-Con.

Year and month	Manufacturing-Continued																	
	Furniture and fixtures-Continued												Paper and allied products					
	Wood household furniture, except upholstered			Wood household furniture, upholstered			Mattresses and bedsprings			Other furniture and fixtures			Total: Paper and allied products			Pulp, paper, and paperboard mills		
	Ave. wky. earnings	Ave. wky. hours	Ave. hrly. earnings	Ave. wky. earnings	Ave. wky. hours	Ave. hrly. earnings	Ave. wky. earnings	Ave. wky. hours	Ave. hrly. earnings	Ave. wky. earnings	Ave. wky. hours	Ave. hrly. earnings	Ave. wky. earnings	Ave. wky. hours	Ave. hrly. earnings	Ave. wky. earnings	Ave. wky. hours	Ave. hrly. earnings
1949: Average.....	\$43.66	40.0	\$1.092	\$50.18	38.9	\$1.290	\$51.69	39.7	\$1.302	\$55.47	40.7	\$1.363	\$55.96	41.7	\$1.342	\$59.83	42.4	\$1.411
1950: Average.....	48.39	42.2	1.144	56.35	41.4	1.361	57.27	41.2	1.390	58.53	41.9	1.397	61.14	43.3	1.412	65.98	43.9	1.482
1950: April.....	46.40	41.5	1.118	54.42	40.7	1.137	54.28	40.0	1.137	56.52	41.5	1.362	58.20	42.3	1.376	62.42	43.2	1.448
May.....	47.17	42.0	1.123	54.42	40.7	1.137	53.97	39.8	1.136	55.41	40.8	1.362	58.08	42.3	1.373	61.82	43.2	1.431
June.....	47.52	42.2	1.126	54.54	40.7	1.140	55.57	40.8	1.162	57.60	42.2	1.365	60.03	43.0	1.406	64.21	43.5	1.495
July.....	46.44	41.1	1.130	52.67	39.9	1.125	54.31	39.7	1.136	58.96	42.1	1.396	61.36	43.3	1.417	65.74	44.0	1.494
August.....	49.19	43.0	1.144	56.66	42.0	1.149	58.42	42.3	1.381	60.24	43.0	1.401	62.74	44.0	1.426	66.99	44.8	1.502
September.....	49.97	43.0	1.162	58.61	42.5	1.179	59.59	42.2	1.412	59.71	42.2	1.415	63.10	44.0	1.434	66.89	44.3	1.510
October.....	51.39	43.4	1.184	60.49	42.9	1.187	57.69	40.8	1.414	61.24	42.5	1.441	63.27	44.0	1.438	67.20	44.5	1.510
November.....	51.88	43.2	1.194	60.65	42.5	1.427	61.70	42.0	1.460	61.25	42.3	1.448	64.92	44.1	1.472	69.00	44.4	1.554
December.....	50.87	42.5	1.197	60.43	42.2	1.432	60.74	41.8	1.453	62.34	42.7	1.460	66.44	44.5	1.493	70.62	44.9	1.573
1951: January.....	51.06	42.2	1.210	57.06	39.9	1.430	61.02	41.4	1.474	63.00	42.2	1.495	65.96	43.8	1.506	70.89	44.7	1.586
February.....	52.31	42.7	1.225	58.92	41.0	1.437	59.70	40.5	1.474	64.33	42.6	1.510	65.96	43.4	1.506	70.49	44.5	1.584
March.....	52.16	42.3	1.233	60.28	41.4	1.456	64.24	42.6	1.508	64.39	42.7	1.508	66.25	43.7	1.516	70.94	44.7	1.587
April.....	51.08	41.6	1.228	56.19	38.7	1.452	58.23	39.8	1.463	65.79	42.5	1.548	66.27	43.6	1.520	71.25	44.7	1.594
Year and month	Manufacturing-Continued																	
	Paper and allied products-Continued									Printing, publishing, and allied industries								
	Paperboard containers and boxes			Other paper and allied products			Total: Printing, publishing, and allied industries			Newspapers			Periodicals			Books		
	Ave. wky. earnings	Ave. wky. hours	Ave. hrly. earnings	Ave. wky. earnings	Ave. wky. hours	Ave. hrly. earnings	Ave. wky. earnings	Ave. wky. hours	Ave. hrly. earnings	Ave. wky. earnings	Ave. wky. hours	Ave. hrly. earnings	Ave. wky. earnings	Ave. wky. hours	Ave. hrly. earnings	Ave. wky. earnings	Ave. wky. hours	Ave. hrly. earnings
1949: Average.....	\$32.45	41.2	\$1.273	\$51.07	40.6	\$1.258	\$70.28	38.7	\$1.816	\$78.37	37.3	\$2.101	\$70.21	38.9	\$1.805	\$61.07	38.6	\$1.583
1950: Average.....	37.96	43.0	1.348	55.48	42.0	1.321	72.98	38.8	1.881	80.00	36.9	2.168	74.18	39.5	1.878	68.91	39.1	1.639
1950: April.....	54.03	41.4	1.305	53.27	41.2	1.293	72.18	38.6	1.870	79.88	37.1	2.133	72.41	39.1	1.852	64.05	39.2	1.634
May.....	54.74	41.5	1.319	53.35	41.2	1.295	72.64	38.7	1.877	81.05	37.3	2.173	71.60	38.6	1.855	64.23	39.3	1.637
June.....	56.62	42.6	1.329	54.59	41.7	1.309	72.72	38.7	1.879	80.76	37.2	2.171	71.92	39.0	1.844	64.11	39.5	1.628
July.....	57.70	42.9	1.345	55.36	42.0	1.318	72.30	38.5	1.878	79.20	36.6	2.164	72.83	39.2	1.858	63.34	39.0	1.624
August.....	59.75	44.0	1.358	56.70	42.7	1.330	73.17	38.9	1.881	78.84	36.8	2.160	75.08	39.6	1.896	67.31	40.5	1.662
September.....	60.96	44.3	1.376	57.06	42.9	1.330	74.48	39.2	1.900	81.11	36.9	2.198	76.98	41.1	1.946	64.70	39.5	1.638
October.....	61.18	44.4	1.378	57.11	42.4	1.347	74.22	39.0	1.903	81.07	36.8	2.203	77.33	40.4	1.914	64.16	39.1	1.641
November.....	62.16	44.4	1.400	59.07	42.9	1.377	74.52	39.2	1.901	82.29	37.2	2.212	76.07	39.7	1.916	64.52	39.1	1.650
December.....	63.70	44.7	1.425	60.26	43.2	1.395	76.42	39.8	1.920	85.42	38.1	2.242	76.81	39.8	1.930	66.33	39.6	1.676
1951: January.....	61.89	43.1	1.436	60.07	42.6	1.410	74.22	38.9	1.908	79.12	35.8	2.210	77.95	40.1	1.944	66.60	39.5	1.686
February.....	61.80	42.8	1.444	58.83	41.9	1.404	74.23	38.4	1.933	79.96	36.0	2.221	78.23	40.2	1.971	66.21	38.9	1.702
March.....	63.22	43.3	1.460	60.14	42.2	1.425	75.93	39.0	1.947	82.28	36.7	2.242	79.20	40.1	1.975	67.37	39.5	1.705
April.....	62.74	43.0	1.459	59.90	42.1	1.425	75.82	38.9	1.949	82.91	36.8	2.253	77.97	39.7	1.964	67.85	39.6	1.714
Year and month	Manufacturing-Continued																	
	Printing, publishing, and allied industries-Continued									Chemicals and allied products								
	Commercial printing			Lithographing			Other printing and publishing			Total: Chemicals and allied products			Industrial inorganic chemicals			Industrial organic chemicals		
	Ave. wky. earnings	Ave. wky. hours	Ave. hrly. earnings	Ave. wky. earnings	Ave. wky. hours	Ave. hrly. earnings	Ave. wky. earnings	Ave. wky. hours	Ave. hrly. earnings	Ave. wky. earnings	Ave. wky. hours	Ave. hrly. earnings	Ave. wky. earnings	Ave. wky. hours	Ave. hrly. earnings	Ave. wky. earnings	Ave. wky. hours	Ave. hrly. earnings
1949: Average.....	\$69.44	39.7	\$1.749	\$69.17	39.3	\$1.760	\$62.66	38.7	\$1.619	\$58.63	41.0	\$1.430	\$63.90	40.6	\$1.574	\$60.83	39.5	\$1.540
1950: Average.....	72.34	39.9	1.813	73.04	40.0	1.826	65.18	39.1	1.667	62.67	41.8	1.519	67.89	40.9	1.608	65.89	40.6	1.618
1950: April.....	70.88	39.4	1.790	71.58	39.2	1.826	64.54	38.9	1.650	60.56	41.0	1.470	65.77	40.9	1.606	63.12	40.1	1.574
May.....	71.68	39.8	1.801	71.74	39.7	1.807	63.39	38.3	1.655	61.18	41.2	1.485	65.85	40.7	1.618	63.91	40.5	1.578
June.....	71.79	39.6	1.813	72.23	39.6	1.824	64.00	38.6	1.658	62.39	41.4	1.507	65.32	39.9	1.637	65.16	40.8	1.597
July.....	71.95	39.6	1.817	73.11	39.8	1.837	64.58	39.0	1.666	62.99	41.2	1.529	65.85	41.2	1.671	66.02	40.7	1.618
August.....	72.38	40.1	1.805	75.22	41.2	1.850	65.82	39.2	1.679	63.48	41.6	1.526	68.97	41.6	1.658	65.85	40.7	1.618
September.....	73.61	40.6	1.813	75.67	40.9	1.850	65.90	38.9	1.694	64.16	41.8	1.535	68.24	40.4	1.669	67.52	40.8	1.655
October.....	73.78	39.9	1.849	76.09	41.4	1.838	65.69	39.5	1.663	64.55	42.0	1.537	71.13	41.4	1.718	67.98	40.9	1.662
November.....	73.42	40.1	1.831	74.89	40.9	1.831	66.59	39.9	1.669	65.82	42.0	1.560	71.91	41.4	1.737	69.34	41.2	1.683
December.....	75.60	41.0	1.844	74.95	41.0	1.828	67.33	40.1	1.679	66.43	42.1	1.578	72.98	41.6	1.745	69.75	41.2	1.663
1951: January.....	74.58	40.6	1.837	73.79	39.8	1.854	67.31	39.9	1.687	66.99	42.0	1.565	73.13	41.2	1.775	70.11	41.0	1.710
February.....	73.24	39.4	1.859	75.33	40.2	1.874	66.81	38.8	1.722	67.17	41.8	1.607	73.79	41.5	1.774	70.26	40.8	1.722
March.....	75.60	40.3	1.876	74.85	40.2	1.860	67.96	39.1	1.738	67.79	42.0	1.614	73.69	41.4	1.780	71.19	41.2	1.728
April.....	74.84	40.0	1.871	77.45	40.8	1.869	67.08	39.0	1.720	67.88	41.8	1.624	73.86	41.4	1.794	71.27	41.1	1.734

See footnotes at end of table.



TABLE C-1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees <sup>1</sup>-Con.

Year and month	Manufacturing—Continued																	
	Chemicals and allied products—Continued																	
	Plastics, except synthetic rubber			Synthetic rubber			Synthetic fibers			Drugs and medicines			Paints, pigments, and fillers			Fertilizers		
	Avg. wky. earnings	Avg. wky. hours	Avg. hrly. earnings	Avg. wky. earnings	Avg. wky. hours	Avg. hrly. earnings	Avg. wky. earnings	Avg. wky. hours	Avg. hrly. earnings	Avg. wky. earnings	Avg. wky. hours	Avg. hrly. earnings	Avg. wky. earnings	Avg. wky. hours	Avg. hrly. earnings	Avg. wky. earnings	Avg. wky. hours	Avg. hrly. earnings
1949: Average.....	\$60.36	40.4	\$1.494	\$66.74	39.8	\$1.677	\$55.20	38.6	\$1.430	\$56.00	40.4	\$1.401	\$50.78	41.0	\$1.458	\$44.72	41.6	\$1.075
1950: Average.....	65.54	41.8	1.568	71.93	40.8	1.763	58.40	39.3	1.486	58.59	40.9	1.457	64.80	42.3	1.532	47.00	41.3	1.128
1950: April.....	62.53	41.0	1.525	70.96	41.4	1.714	56.52	38.9	1.453	58.67	40.8	1.438	62.89	41.9	1.501	46.44	41.8	1.111
May.....	63.37	41.2	1.538	70.48	41.0	1.719	57.35	39.5	1.452	58.75	40.8	1.440	63.53	42.3	1.502	47.92	41.6	1.152
June.....	65.23	42.0	1.553	70.78	40.7	1.739	57.76	39.4	1.456	59.27	41.1	1.442	64.91	42.9	1.513	49.52	42.0	1.179
July.....	66.41	42.6	1.559	72.52	40.4	1.795	57.81	38.9	1.456	58.47	40.1	1.458	64.86	42.5	1.526	49.20	41.8	1.177
August.....	65.07	41.5	1.568	71.52	41.2	1.735	58.96	39.3	1.501	59.68	40.6	1.470	66.99	43.5	1.540	47.83	41.2	1.161
September.....	67.48	42.6	1.584	72.54	40.3	1.801	59.94	39.2	1.529	60.19	41.2	1.461	67.35	43.2	1.559	48.18	41.5	1.161
October.....	67.83	42.0	1.615	72.16	41.0	1.760	60.45	39.2	1.542	61.12	41.3	1.480	67.45	42.8	1.576	46.80	40.8	1.147
November.....	66.29	42.4	1.632	76.63	41.2	1.900	61.10	39.6	1.543	62.00	41.5	1.494	66.70	42.3	1.579	47.31	41.0	1.154
December.....	70.43	42.3	1.665	76.03	41.3	1.841	61.26	39.7	1.543	62.75	41.5	1.512	66.90	42.1	1.580	48.72	41.5	1.174
1951: January.....	72.08	42.7	1.688	75.19	40.6	1.852	61.61	39.7	1.552	63.48	41.3	1.537	68.61	42.8	1.603	49.56	42.3	1.181
February.....	70.72	41.5	1.704	76.97	40.9	1.882	61.59	39.3	1.562	63.77	41.3	1.544	69.05	42.6	1.621	48.42	41.0	1.181
March.....	71.27	41.8	1.705	78.14	41.3	1.892	62.29	39.5	1.577	64.76	41.7	1.553	69.07	42.4	1.629	50.52	42.9	1.187
April.....	71.48	41.9	1.706	78.75	41.6	1.893	62.85	39.7	1.583	65.57	41.9	1.565	69.33	42.3	1.639	51.10	42.3	1.208
Year and month	Manufacturing—Continued																	
	Chemicals and allied products—Continued																	
	Vegetable and animal oils and fats			Other chemicals and allied products			Soap and glycerin			Total: Products of petroleum and coal			Petroleum refining			Coke and byproducts		
	Avg. wky. earnings	Avg. wky. hours	Avg. hrly. earnings	Avg. wky. earnings	Avg. wky. hours	Avg. hrly. earnings	Avg. wky. earnings	Avg. wky. hours	Avg. hrly. earnings	Avg. wky. earnings	Avg. wky. hours	Avg. hrly. earnings	Avg. wky. earnings	Avg. wky. hours	Avg. hrly. earnings	Avg. wky. earnings	Avg. wky. hours	Avg. hrly. earnings
1949: Average.....	\$51.12	47.2	\$1.083	\$60.67	40.8	\$1.487	\$66.54	40.9	\$1.627	\$72.36	40.4	\$1.791	\$75.33	40.2	\$1.874	\$61.07	39.3	\$1.554
1950: Average.....	53.46	45.5	1.175	64.41	41.5	1.552	71.81	41.7	1.722	75.01	40.9	1.854	77.93	40.4	1.920	62.85	39.7	1.583
1950: April.....	51.57	44.3	1.164	62.82	41.3	1.521	68.88	40.9	1.684	73.35	40.8	1.810	77.11	40.5	1.904	62.00	40.0	1.565
May.....	52.82	44.2	1.165	62.28	41.0	1.519	68.74	40.7	1.680	73.26	40.6	1.805	77.53	39.9	1.868	61.65	39.8	1.554
June.....	53.87	43.9	1.227	63.38	41.4	1.531	69.96	41.2	1.698	74.17	41.0	1.814	76.82	40.2	1.911	62.73	39.7	1.580
July.....	55.46	43.6	1.272	63.29	41.1	1.540	69.99	41.0	1.707	76.39	41.6	1.829	78.93	41.0	1.925	63.36	39.6	1.600
August.....	55.11	44.3	1.244	64.62	41.8	1.546	74.08	42.7	1.735	73.72	40.6	1.816	75.29	39.4	1.911	63.12	39.8	1.566
September.....	55.03	45.9	1.199	66.13	42.2	1.567	74.99	43.0	1.744	76.77	41.7	1.841	76.72	41.2	1.935	63.61	39.6	1.614
October.....	54.41	44.6	1.143	66.24	41.9	1.581	74.59	42.5	1.755	77.71	41.6	1.868	80.93	41.1	1.969	63.68	40.2	1.594
November.....	55.56	46.9	1.185	66.89	41.7	1.604	75.85	42.4	1.789	78.32	41.2	1.901	81.64	40.7	2.006	63.60	40.0	1.590
December.....	56.72	46.8	1.215	68.75	42.1	1.633	77.82	42.9	1.814	78.32	41.2	1.901	81.03	40.7	1.991	67.54	40.2	1.680
1951: January.....	56.90	46.0	1.237	69.13	42.0	1.646	76.83	42.4	1.812	79.58	41.0	1.941	82.95	40.7	2.038	68.82	40.2	1.712
February.....	56.36	44.8	1.258	70.05	42.3	1.656	79.36	43.2	1.837	78.44	40.6	1.932	81.28	40.2	2.022	69.63	40.2	1.732
March.....	56.06	43.9	1.277	70.43	42.4	1.661	80.49	43.3	1.859	79.53	40.5	1.939	81.49	40.1	2.030	69.08	39.4	1.728
April.....	57.90	44.2	1.310	69.26	42.0	1.649	77.03	42.0	1.834	81.13	41.1	1.974	84.62	40.8	2.074	68.79	39.9	1.724
Year and month	Manufacturing—Continued																	
	Chemicals and allied products—Continued																	
	Products of petroleum and coal—Con.			Rubber products												Leather and leather products		
	Other petroleum and coal products			Total: Rubber products			Tires and inner tubes			Rubber footwear			Other rubber products			Total: Leather and leather products		
	Avg. wky. earnings	Avg. wky. hours	Avg. hrly. earnings	Avg. wky. earnings	Avg. wky. hours	Avg. hrly. earnings	Avg. wky. earnings	Avg. wky. hours	Avg. hrly. earnings	Avg. wky. earnings	Avg. wky. hours	Avg. hrly. earnings	Avg. wky. earnings	Avg. wky. hours	Avg. hrly. earnings	Avg. wky. earnings	Avg. wky. hours	Avg. hrly. earnings
1949: Average.....	\$61.18	42.9	\$1.426	\$37.79	38.3	\$1.509	\$63.26	36.4	\$1.738	\$48.94	38.6	\$1.268	\$54.38	40.1	\$1.356	\$41.61	36.6	\$1.137
1950: Average.....	66.78	44.7	1.494	64.42	40.9	1.575	72.48	39.8	1.821	52.21	40.1	1.302	56.16	42.2	1.416	44.56	37.6	1.185
1950: April.....	63.00	43.3	1.455	61.76	40.0	1.544	69.23	39.0	1.775	50.36	39.5	1.275	57.13	41.1	1.390	41.96	35.8	1.172
May.....	67.44	45.2	1.492	64.62	41.2	1.566	74.60	41.1	1.815	50.20	39.4	1.274	57.92	41.7	1.389	41.56	35.4	1.174
June.....	69.13	46.3	1.493	65.08	41.4	1.572	74.05	40.6	1.824	52.07	40.3	1.292	59.23	42.4	1.397	43.00	37.2	1.172
July.....	70.38	46.7	1.507	65.39	41.2	1.592	75.22	40.4	1.862	52.13	39.7	1.313	59.08	42.2	1.400	44.73	38.1	1.174
August.....	71.82	47.5	1.512	66.23	41.8	1.565	76.01	40.8	1.863	53.93	41.9	1.287	60.13	42.8	1.405	46.49	38.5	1.166
September.....	69.76	46.2	1.510	66.58	41.9	1.589	75.46	40.9	1.845	53.95	41.5	1.300	61.30	42.9	1.429	45.72	38.1	1.200
October.....	69.94	46.8	1.527	66.29	41.9	1.582	75.12	40.2	1.819	56.00	42.2	1.327	62.48	43.3	1.443	46.04	37.8	1.215
November.....	69.15	44.9	1.540	66.22	41.5	1.603	73.70	40.1	1.838	54.62	42.0	1.298	62.71	42.6	1.472	45.94	37.5	1.228
December.....	69.67	44.6	1.562	68.76	41.6	1.653	76.21	39.9	1.910	56.34	42.6	1.393	64.29	42.8	1.502	47.26	38.3	1.234
1951: January.....	68.08	43.7	1.558	69.78	40.4	1.633	75.69	38.4	1.919	57.53	41.6	1.383	63.06	41.9	1.505	48.30	38.7	1.248
February.....	67.68	43.3	1.563	67.37	39.1	1.629	66.95	35.5	1.886	55.87	40.6	1.376	61.95	41.3	1.500	49.43	39.2	1.261
March.....	68.99	43.8	1.575	66.08	40.1	1.648	71.10	37.4	1.901	58.17	41.4	1.405	63.87	42.1	1.517	48.78	38.5	1.267
April.....	69.41	43.9	1.581	65.63	39.8	1.649	68.17	36.5	1.895	59.82	42.1	1.421	64.05	42.0	1.525	46.59	36.4	1.280

See footnotes at end of table.



TABLE C-1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees <sup>1</sup>-Con.

Year and month	Manufacturing-Continued																	
	Leather and leather products-Continued									Stone, clay, and glass products								
	Leather			Footwear (except rubber)			Other leather products			Total: Stone, clay, and glass products			Glass and glass products			Glass containers		
	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings
1949: Average.....	\$54.11	38.9	\$1.391	\$50.35	35.9	\$1.096	\$41.10	37.5	\$1.096	\$54.45	39.8	\$1.368	\$50.71	39.0	\$1.454	\$52.80	39.3	\$1.369
1950: Average.....	57.21	39.7	1.441	41.99	36.9	1.138	44.85	38.3	1.165	59.20	41.2	1.437	61.58	40.3	1.528	56.36	39.8	1.416
1950: April.....	54.44	38.5	1.414	39.18	34.7	1.129	42.75	37.5	1.140	56.56	40.4	1.400	59.58	40.2	1.482	53.42	40.1	1.382
May.....	55.00	38.9	1.414	38.48	34.2	1.125	42.58	36.9	1.154	57.28	40.8	1.404	59.76	40.5	1.476	54.08	40.4	1.381
June.....	56.57	39.7	1.425	40.84	36.4	1.122	44.39	38.3	1.150	58.12	41.1	1.414	59.74	40.3	1.469	55.23	40.4	1.367
July.....	56.73	39.7	1.429	42.93	37.7	1.128	44.16	38.2	1.156	58.87	40.9	1.422	60.24	39.5	1.525	55.40	39.6	1.399
August.....	58.40	40.5	1.442	44.39	38.8	1.144	45.70	39.5	1.157	59.40	41.6	1.428	59.10	39.8	1.485	53.31	38.8	1.374
September.....	58.64	40.3	1.435	43.32	37.6	1.182	45.00	38.1	1.181	60.89	41.5	1.467	61.31	39.0	1.572	54.69	37.1	1.474
October.....	59.44	40.3	1.475	42.78	36.7	1.165	47.64	39.5	1.206	63.11	42.2	1.485	65.66	41.4	1.586	61.19	40.9	1.495
November.....	59.79	40.4	1.480	42.52	36.0	1.172	47.96	39.7	1.208	63.66	42.3	1.505	67.03	41.3	1.623	59.94	40.5	1.480
December.....	61.17	40.7	1.503	44.02	37.4	1.177	48.06	39.3	1.223	63.60	42.2	1.507	65.89	41.0	1.607	60.29	40.9	1.474
81: January.....	61.58	40.7	1.513	45.88	38.3	1.198	47.89	38.9	1.231	63.48	41.6	1.526	66.10	40.6	1.628	60.95	40.5	1.505
February.....	62.62	40.6	1.540	46.99	38.8	1.211	48.82	39.4	1.239	63.15	41.3	1.529	65.04	40.3	1.614	58.82	39.5	1.489
March.....	60.59	39.6	1.530	46.56	38.1	1.222	48.47	38.9	1.246	64.57	41.9	1.541	66.54	41.2	1.615	59.85	39.9	1.500
April.....	60.29	39.1	1.542	43.74	35.5	1.232	47.10	37.5	1.256	65.13	42.1	1.547	67.23	41.6	1.616	61.39	41.2	1.490
Year and month	Manufacturing-Continued																	
	Stone, clay, and glass products-Continued																	
	Pressed and blown glass			Cement, hydraulic			Structural clay products			Brick and hollow tile			Sewer pipe			Pottery and related products		
	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings
1949: Average.....	\$50.30	38.6	\$1.303	\$57.49	41.6	\$1.382	\$49.73	39.0	\$1.275	\$49.87	41.8	\$1.186	\$48.61	39.2	\$1.240	\$48.55	36.4	\$1.342
1950: Average.....	53.71	39.7	1.353	60.15	41.7	1.442	54.19	40.5	1.338	53.75	42.9	1.253	62.04	39.7	1.314	52.16	39.5	1.391
1950: April.....	49.87	38.6	1.292	58.88	41.7	1.412	52.37	40.1	1.306	51.27	42.3	1.212	60.33	40.8	1.241	50.26	39.9	1.362
May.....	50.96	39.2	1.300	59.13	41.7	1.418	53.27	40.2	1.326	54.16	43.4	1.248	49.96	38.4	1.301	50.46	37.1	1.390
June.....	50.27	38.4	1.309	60.27	42.0	1.435	54.09	40.7	1.329	54.63	43.6	1.253	54.85	41.3	1.328	48.71	38.3	1.380
July.....	49.90	38.0	1.314	61.30	41.7	1.470	54.40	40.9	1.330	54.80	43.6	1.259	54.60	41.3	1.322	49.13	38.5	1.384
August.....	51.81	39.7	1.300	61.13	42.1	1.452	55.27	41.4	1.335	55.71	43.9	1.269	53.85	40.4	1.333	52.59	38.0	1.384
September.....	58.70	40.5	1.400	61.06	41.8	1.475	56.00	41.3	1.356	55.73	43.2	1.280	54.88	40.5	1.355	53.70	38.4	1.402
October.....	58.24	41.1	1.417	61.59	41.9	1.470	57.73	41.8	1.381	57.77	44.3	1.367	55.05	40.3	1.366	53.61	39.4	1.419
November.....	61.15	41.4	1.477	62.10	42.1	1.475	57.96	41.3	1.401	57.51	43.7	1.316	54.14	39.2	1.381	57.47	39.8	1.444
December.....	58.84	41.0	1.435	62.42	41.9	1.460	58.25	41.4	1.407	57.16	43.5	1.314	53.98	39.2	1.377	56.84	38.8	1.465
1951: January.....	57.10	39.9	1.431	62.45	41.3	1.512	59.00	41.2	1.432	55.88	42.3	1.321	56.50	40.3	1.402	57.05	38.6	1.478
February.....	57.14	39.9	1.432	62.93	41.7	1.509	57.65	40.4	1.427	54.24	41.5	1.367	54.86	39.3	1.396	57.09	38.9	1.483
March.....	58.55	41.0	1.428	64.20	42.1	1.525	60.05	41.3	1.454	57.78	42.8	1.350	56.29	39.7	1.418	58.26	39.1	1.490
April.....	57.63	40.7	1.416	64.33	41.8	1.539	61.03	41.6	1.467	59.54	43.3	1.375	56.91	39.8	1.430	58.65	39.1	1.500
Year and month	Manufacturing-Continued																	
	Stone, clay, and glass products-Continued									Primary metal industries								
	Concrete, gypsum, and plaster products			Concrete products			Other stone, clay, and glass products			Total: Primary metal industries			Blast furnaces, steel works, and rolling mills			Iron and steel foundries		
	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings
1949: Average.....	\$57.77	43.8	\$1.319	\$59.31	43.8	\$1.354	\$54.72	39.2	\$1.390	\$60.78	38.3	\$1.587	\$63.04	38.3	\$1.646	\$55.09	37.2	\$1.481
1950: Average.....	62.64	45.0	1.392	61.15	43.9	1.395	60.94	41.4	1.472	67.24	40.5	1.648	67.47	39.9	1.691	63.22	41.9	1.559
1950: April.....	59.76	44.1	1.355	60.25	43.5	1.362	56.22	39.4	1.427	63.00	40.4	1.609	66.08	40.0	1.632	62.37	40.9	1.525
May.....	60.75	44.7	1.359	60.20	44.3	1.359	56.07	40.3	1.441	65.57	40.5	1.619	65.86	39.7	1.650	63.19	41.3	1.530
June.....	62.06	45.2	1.373	61.07	45.1	1.384	60.00	41.7	1.441	66.50	40.8	1.650	66.63	39.8	1.674	64.72	42.9	1.541
July.....	62.06	45.4	1.389	60.78	44.2	1.375	60.17	41.2	1.457	66.95	40.7	1.645	67.83	39.9	1.700	64.37	41.8	1.540
August.....	64.44	45.7	1.410	62.62	44.6	1.404	62.20	42.4	1.467	67.36	41.1	1.639	67.37	40.1	1.680	66.07	42.6	1.581
September.....	65.35	45.7	1.430	63.59	44.5	1.429	64.52	42.9	1.504	69.10	41.4	1.669	69.30	40.2	1.724	67.57	42.9	1.575
October.....	66.38	46.0	1.443	64.69	44.6	1.437	65.79	43.2	1.525	69.81	41.9	1.666	68.67	40.8	1.688	70.04	43.8	1.599
November.....	65.57	45.6	1.438	65.64	44.1	1.442	66.55	43.1	1.544	70.14	41.8	1.678	69.03	40.8	1.692	69.23	43.0	1.610
December.....	66.25	45.8	1.466	65.19	44.9	1.452	67.03	43.3	1.548	74.36	42.3	1.738	75.21	41.1	1.830	72.37	44.1	1.641
1951: January.....	64.68	44.3	1.460	65.32	43.4	1.459	67.25	43.0	1.564	74.42	41.6	1.789	76.41	40.6	1.882	71.66	43.3	1.655
February.....	65.37	44.2	1.479	65.19	42.9	1.473	66.96	42.2	1.583	73.12	41.1	1.779	74.16	40.0	1.854	71.48	42.8	1.670
March.....	66.69	45.0	1.482	65.56	43.4	1.480	67.28	42.0	1.602	74.85	41.7	1.795	76.59	41.0	1.868	72.97	43.1	1.693
April.....	67.61	45.5	1.486	66.12	44.8	1.476	67.82	42.2	1.607	75.77	42.0	1.804	78.04	41.4	1.885	75.18	43.1	1.698

See footnotes at end of table



TABLE C-1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees <sup>1</sup>-Con.

Year and month	Manufacturing-Continued																	
	Primary metal industries-Continued																	
	Gray-iron foundries			Malleable-iron foundries			Steel foundries			Primary smelting and refining of nonferrous metals			Primary smelting and refining of copper, lead, and zinc			Primary refining of aluminum		
	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings
1949: Average.....	\$54.38	37.5	\$1.450	\$54.30	35.7	\$1.521	\$56.73	37.3	\$1.521	\$60.36	40.4	\$1.494	\$58.00	40.1	\$1.471	\$61.05	41.3	\$1.500
1950: Average.....	65.06	42.3	1.538	65.46	41.3	1.585	65.43	41.1	1.592	63.71	41.0	1.554	62.37	40.9	1.535	63.97	40.9	1.564
1950: April.....	62.03	41.3	1.502	63.25	40.6	1.558	62.79	40.3	1.558	61.61	40.8	1.510	60.38	40.8	1.480	62.03	40.7	1.524
May.....	63.24	41.8	1.513	63.28	40.8	1.581	63.30	40.6	1.589	61.98	40.8	1.519	60.29	40.6	1.485	62.73	41.0	1.530
June.....	64.08	42.3	1.515	65.87	41.9	1.872	65.65	41.5	1.582	62.54	40.9	1.529	61.44	40.8	1.508	62.44	41.0	1.523
July.....	65.88	42.0	1.521	64.80	41.3	1.569	65.31	41.6	1.570	62.83	40.3	1.550	61.37	39.9	1.538	63.06	41.0	1.538
August.....	66.38	43.2	1.536	66.32	42.0	1.579	65.73	41.6	1.580	63.15	40.9	1.544	61.89	40.8	1.517	62.87	40.8	1.541
September.....	67.97	43.6	1.559	67.69	42.2	1.604	66.08	41.3	1.600	64.44	41.2	1.564	63.18	41.0	1.541	63.47	41.0	1.548
October.....	70.28	44.3	1.586	69.18	42.6	1.624	69.38	42.8	1.621	66.40	41.5	1.600	65.01	41.7	1.559	67.23	40.4	1.664
November.....	69.18	43.4	1.594	69.28	42.5	1.630	69.17	42.2	1.639	67.73	41.0	1.652	66.30	40.9	1.621	68.84	41.0	1.679
December.....	71.97	44.4	1.621	72.08	43.8	1.652	72.31	43.3	1.670	69.47	41.7	1.666	67.97	41.6	1.634	70.61	41.7	1.679
1951: January.....	70.63	43.6	1.620	71.52	42.7	1.675	73.19	42.8	1.710	70.67	41.5	1.703	69.03	41.5	1.685	69.41	41.0	1.663
February.....	69.90	42.7	1.637	70.89	42.5	1.668	74.48	43.2	1.724	69.18	41.3	1.675	68.06	41.2	1.652	69.21	41.0	1.668
March.....	72.22	43.4	1.664	73.10	42.9	1.704	73.48	42.4	1.733	69.64	41.6	1.674	68.81	41.6	1.654	69.12	40.8	1.694
April.....	71.04	42.9	1.656	74.51	42.8	1.741	74.42	42.6	1.747	70.69	42.2	1.675	70.05	42.2	1.660	70.12	41.2	1.702
Year and month	Manufacturing-Continued																	
	Primary metal industries-Continued																	
	Rolling, drawing, and alloying of nonferrous metals			Rolling, drawing, and alloying of copper			Rolling, drawing, and alloying of aluminum			Nonferrous foundries			Other primary metal industries			Iron and steel forgings		
	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings
1949: Average.....	\$58.05	38.7	\$1.500	\$58.29	38.5	\$1.540	\$56.21	38.9	\$1.445	\$60.92	39.0	\$1.562	\$63.34	39.1	\$1.620	\$63.19	38.2	\$1.654
1950: Average.....	66.75	41.9	1.593	70.24	42.7	1.645	59.99	40.1	1.496	67.65	41.5	1.630	71.27	42.9	1.701	74.09	41.6	1.781
1950: April.....	64.29	41.4	1.533	67.61	42.1	1.608	58.53	40.2	1.456	64.03	40.5	1.581	67.61	40.8	1.637	68.80	40.0	1.720
May.....	66.63	42.2	1.579	70.72	43.2	1.637	58.73	40.2	1.461	65.56	40.9	1.598	69.68	41.6	1.675	72.94	41.8	1.745
June.....	67.75	42.6	1.583	72.26	43.9	1.646	58.26	40.4	1.442	66.52	41.6	1.599	70.39	41.8	1.694	72.21	41.5	1.740
July.....	67.78	42.4	1.598	73.46	44.2	1.662	57.02	39.0	1.462	64.27	40.5	1.587	70.47	41.6	1.694	73.08	41.5	1.761
August.....	68.48	42.8	1.600	73.67	44.3	1.663	58.51	39.8	1.470	66.36	41.4	1.603	71.95	42.2	1.705	74.63	41.6	1.794
September.....	65.21	41.4	1.575	68.09	41.8	1.629	57.56	39.4	1.461	70.61	42.9	1.646	74.13	42.8	1.732	77.83	42.6	1.827
October.....	68.05	41.8	1.628	70.22	42.1	1.668	63.59	40.4	1.574	72.29	42.8	1.669	75.17	43.1	1.736	80.29	43.4	1.850
November.....	69.18	41.7	1.629	71.48	41.8	1.710	64.43	40.6	1.587	72.80	42.8	1.701	76.65	43.8	1.750	82.86	44.1	1.879
December.....	72.46	43.0	1.685	76.08	43.9	1.733	68.01	40.9	1.614	75.47	43.6	1.731	77.60	43.4	1.788	81.11	43.4	1.890
1951: January.....	67.96	40.9	1.662	68.87	40.8	1.668	64.68	40.1	1.613	72.23	42.1	1.718	77.94	42.8	1.821	82.34	43.2	1.906
February.....	68.30	40.8	1.674	69.52	40.7	1.708	64.96	40.1	1.630	72.70	42.0	1.731	76.83	42.1	1.825	81.49	42.6	1.913
March.....	68.21	40.7	1.676	69.80	40.8	1.713	64.08	39.7	1.614	72.65	41.9	1.741	78.23	42.4	1.845	84.06	43.6	1.928
April.....	67.96	40.6	1.674	69.99	41.0	1.707	63.60	39.5	1.610	73.09	42.4	1.738	78.28	42.9	1.848	85.59	43.8	1.954
Year and month	Manufacturing-Continued																	
	Fabricated metal products (except ordnance, machinery, and transportation equipment)																	
	Wire drawing			Total: Fabricated metal products (except ordnance, machinery, and transportation equipment)			Tin cans and other tinware			Cutlery, hand tools, and hardware			Cutlery and edge tools			Hand tools		
	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings
1949: Average.....	\$63.66	39.2	\$1.624	\$57.82	38.6	\$1.460	\$56.24	40.4	\$1.392	\$54.82	39.3	\$1.395	\$50.84	40.0	\$1.271	\$54.54	38.6	\$1.413
1950: Average.....	73.79	42.9	1.720	63.42	41.4	1.532	60.90	41.6	1.464	61.01	41.5	1.470	55.54	41.7	1.332	61.31	41.2	1.488
1950: April.....	69.89	41.6	1.580	60.56	40.7	1.468	58.77	40.7	1.444	58.79	41.2	1.427	53.49	41.4	1.292	57.32	40.0	1.433
May.....	70.39	41.6	1.692	60.89	40.7	1.496	59.20	41.0	1.444	57.57	40.6	1.418	52.18	40.5	1.288	58.20	40.5	1.437
June.....	72.93	42.4	1.730	62.87	41.5	1.515	60.94	41.8	1.458	60.61	41.6	1.457	54.41	41.6	1.308	59.16	40.8	1.450
July.....	72.89	42.6	1.711	62.55	41.1	1.522	64.14	42.9	1.495	59.57	40.8	1.460	51.34	39.4	1.303	59.38	40.7	1.459
August.....	74.25	43.5	1.707	64.79	42.1	1.539	67.46	44.5	1.516	61.03	41.8	1.467	56.06	42.2	1.329	63.11	42.1	1.490
September.....	77.86	44.8	1.738	65.72	42.1	1.561	63.90	43.0	1.486	62.96	42.0	1.499	57.14	42.2	1.354	64.63	42.3	1.528
October.....	77.00	44.2	1.742	66.06	42.3	1.576	60.56	41.0	1.477	64.99	42.9	1.515	60.71	41.9	1.383	66.13	42.8	1.545
November.....	78.80	45.0	1.751	68.20	41.9	1.580	58.85	40.2	1.464	64.09	42.0	1.526	60.56	43.1	1.405	67.31	42.9	1.569
December.....	80.36	44.4	1.810	68.26	42.4	1.610	63.07	42.1	1.498	67.12	43.0	1.561	62.57	43.6	1.435	68.59	43.3	1.584
1951: January.....	81.95	44.2	1.854	67.80	41.8	1.622	63.26	41.0	1.543	65.44	42.0	1.558	60.99	42.5	1.435	68.51	42.9	1.597
February.....	79.42	43.0	1.847	68.18	41.7	1.635	63.36	40.2	1.576	66.25	42.2	1.570	61.72	42.8	1.442	69.74	43.1	1.618
March.....	78.95	42.4	1.862	69.51	42.1	1.651	64.27	40.5	1.587	66.36	42.0	1.580	60.48	42.0	1.440	70.50	43.2	1.632
April.....	80.38	43.4	1.852	69.51	42.0	1.655	64.07	40.5	1.582	66.56	42.1	1.581	60.83	42.1	1.445	70.42	43.2	1.630

See footnotes at end of table.



TABLE C-1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees <sup>1</sup>-Con.

Manufacturing-Continued																		
Fabricated metal products (except ordnance, machinery, and transportation equipment)-Continued																		
Year and month	Hardware	Heating apparatus (except electric) and plumbers' supplies				Sanitary ware and plumbers' supplies				Oil burners, non-electric heating and cooking apparatus, not elsewhere classified				Fabricated structural metal products		Structural steel and ornamental metalwork		
		Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings		
1949: Average.....	\$56.28	39.3	1.432	\$57.04	38.7	\$1.474	\$59.79	38.5	\$1.553	\$55.45	38.8	\$1.429	\$59.90	40.5	\$1.479	\$60.91		
1950: Average.....	62.65	41.6	1.506	63.91	41.1	1.555	67.64	41.6	1.626	61.20	40.8	1.500	63.29	41.1	1.540	63.23		
1950: April.....	60.71	41.5	1.463	60.78	40.0	1.519	63.91	40.4	1.582	58.63	38.8	1.473	61.31	40.6	1.510	62.09		
May.....	58.87	40.6	1.450	61.30	40.3	1.521	63.91	40.4	1.582	59.30	40.2	1.475	61.66	40.7	1.515	62.25		
June.....	62.93	41.9	1.502	62.11	40.7	1.526	65.27	41.1	1.585	59.90	40.5	1.479	62.65	41.0	1.528	63.40		
July.....	61.58	41.2	1.502	63.28	41.2	1.536	67.43	41.7	1.617	60.20	40.9	1.472	61.39	40.1	1.531	60.39		
August.....	61.91	41.3	1.499	63.53	41.9	1.584	67.51	41.5	1.615	64.20	42.1	1.525	64.22	41.7	1.540	63.63		
September.....	64.23	41.9	1.533	66.83	42.3	1.580	71.18	42.8	1.663	64.13	42.0	1.527	65.02	41.6	1.563	63.44		
October.....	65.82	42.6	1.545	66.09	42.4	1.606	72.41	43.1	1.690	65.20	41.9	1.556	65.93	42.1	1.596	64.85		
November.....	63.97	41.3	1.549	67.27	41.6	1.617	72.85	42.6	1.710	63.67	41.0	1.553	66.25	42.2	1.670	65.80		
December.....	68.09	42.8	1.591	68.88	42.1	1.636	74.13	43.1	1.730	65.49	41.5	1.578	67.87	42.0	1.616	67.55		
1951: January.....	65.41	41.4	1.580	68.85	41.4	1.693	74.07	42.4	1.747	65.28	40.7	1.604	69.17	42.2	1.639	68.64		
February.....	66.14	41.6	1.590	69.60	41.5	1.677	75.40	42.6	1.770	66.13	41.0	1.613	69.43	42.0	1.653	68.64		
March.....	66.52	41.4	1.602	70.94	41.9	1.693	76.79	42.9	1.790	67.20	41.3	1.627	70.47	42.4	1.662	69.80		
April.....	66.24	41.4	1.600	70.39	41.6	1.692	76.35	42.7	1.788	66.38	40.8	1.627	71.74	42.6	1.684	71.15		
Manufacturing-Continued																		
Fabricated metal products (except ordnance, machinery, and transportation equipment)-Continued																Machinery (except electrical)		
Year and month	Boiler-shop products		Sheet-metal work		Metal stamping, coating, and engraving		Stamped and pressed metal products		Other fabricated metal products		Total: Machinery (except electrical)							
	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings			
1949: Average.....	\$50.78	40.2	\$1.487	\$57.60	39.7	\$1.431	\$58.54	39.5	\$1.482	\$60.30	39.7	\$1.519	\$58.38	39.5	\$1.478	\$60.44		
1950: Average.....	62.16	40.6	1.531	62.14	41.1	1.512	64.22	41.3	1.555	66.15	41.5	1.594	64.76	41.7	1.553	67.21		
1950: April.....	59.77	39.9	1.498	58.76	40.0	1.469	61.19	40.9	1.496	62.92	41.1	1.531	61.16	40.8	1.499	64.33		
May.....	59.00	40.0	1.490	60.40	40.7	1.484	61.55	40.6	1.516	63.55	41.0	1.550	62.43	41.1	1.519	65.09		
June.....	61.23	40.6	1.508	60.28	40.4	1.492	64.16	41.5	1.535	66.31	42.1	1.578	64.82	42.2	1.536	65.69		
July.....	61.52	40.5	1.519	61.04	40.8	1.496	65.28	41.1	1.547	65.46	41.3	1.563	63.94	41.6	1.537	66.35		
August.....	62.35	41.1	1.517	63.52	41.9	1.516	65.69	42.0	1.564	67.86	42.2	1.568	66.17	42.5	1.557	67.98		
September.....	64.38	41.4	1.555	63.90	41.6	1.536	68.34	41.7	1.591	68.46	41.9	1.634	67.32	42.3	1.594	68.94		
October.....	65.00	41.4	1.570	65.77	42.6	1.548	65.45	41.8	1.604	68.40	41.7	1.645	68.96	42.7	1.608	71.00		
November.....	65.92	42.2	1.562	64.96	41.8	1.554	66.77	41.5	1.609	68.64	41.6	1.650	67.85	42.3	1.604	72.03		
December.....	68.15	42.2	1.615	66.81	42.1	1.587	68.71	42.1	1.632	70.64	42.2	1.674	70.01	42.9	1.632	74.20		
1951: January.....	68.02	41.6	1.635	66.70	41.3	1.615	67.93	41.6	1.653	69.51	41.5	1.675	68.75	42.0	1.637	74.47		
February.....	68.14	41.8	1.654	68.83	42.1	1.635	67.86	41.2	1.647	69.76	41.3	1.689	68.84	41.9	1.643	73.08		
March.....	70.09	42.2	1.691	68.76	41.8	1.645	69.64	41.6	1.674	71.73	41.7	1.720	70.84	42.7	1.659	76.21		
April.....	72.03	42.8	1.683	70.98	42.5	1.670	68.18	40.8	1.671	70.32	41.0	1.715	71.21	42.9	1.660	76.52		
Manufacturing-Continued																		
Machinery (except electrical)-Continued																		
Year and month	Engines and turbines		Agricultural machinery and tractors		Tractors		Agricultural machinery (except tractors)		Construction and mining machinery		Metalworking machinery							
	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings	Ave. wkly. earnings	Ave. wkly. hours	Ave. hrly. earnings			
1949: Average.....	\$63.13	38.9	\$1.623	\$61.11	39.3	\$1.555	\$61.66	39.2	\$1.578	\$59.93	39.3	\$1.525	\$58.74	39.8	\$1.476	\$61.11		
1950: Average.....	69.43	40.7	1.706	64.60	40.1	1.611	66.09	40.3	1.640	62.57	39.8	1.572	65.97	42.4	1.556	71.94		
1950: April.....	66.72	41.0	1.678	62.96	39.7	1.586	64.68	40.1	1.613	60.68	39.1	1.552	63.11	41.6	1.517	67.21		
May.....	68.79	40.8	1.686	63.88	40.1	1.563	65.49	40.4	1.621	61.77	39.7	1.556	63.70	41.8	1.524	68.57		
June.....	68.70	40.7	1.688	63.84	40.2	1.588	65.16	40.5	1.609	62.16	39.9	1.558	65.20	42.7	1.527	69.81		
July.....	68.91	40.3	1.710	63.88	40.1	1.563	65.08	40.3	1.615	62.23	39.8	1.564	65.06	42.3	1.538	71.16		
August.....	70.83	41.3	1.715	65.29	40.3	1.620	67.29	40.5	1.664	62.36	40.0	1.556	66.60	42.8	1.556	72.42		
September.....	70.81	41.0	1.727	64.35	40.5	1.589	65.97	40.5	1.629	62.37	40.5	1.540	67.62	42.8	1.580	73.24		
October.....	68.48	40.0	1.737	64.82	39.8	1.641	65.27	39.9	1.678	64.00	40.2	1.592	68.98	43.7	1.601	77.83		
November.....	74.57	42.2	1.767	67.51	40.4	1.671	69.30	41.1	1.681	64.69	39.4	1.642	70.31	43.4	1.620	78.23		
December.....	78.29	43.4	1.804	70.79	41.4	1.710	73.68	42.1	1.750	66.78	40.6	1.649	71.70	43.8	1.637	80.58		
1951: January.....	77.81	42.8	1.818	71.84	41.1	1.748	74.70	41.8	1.787	68.06	40.2	1.693	73.06	43.9	1.668	81.31		
February.....	77.91	42.8	1.818	71.28	40.8	1.747	73.50	41.2	1.784	68.47	40.3	1.699	74.18	44.1	1.682	82.99		
March.....	80.33	43.4	1.851	73.14	41.0	1.784	75.19	41.2	1.825	71.31	41.1	1.735	73.41	43.8	1.676	83.82		
April.....	79.57	43.2	1.842	73.11	40.8	1.792	75.93	41.4	1.834	71.34	41.0	1.740	74.77	44.4	1.684	84.83		

See footnotes at end of table.



TABLE C-1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees<sup>1</sup>—Con.

Manufacturing—Continued																			
Machinery (except electrical)—Continued																			
Year and month	Machine tools			Metalworking machinery (except machine tools)			Machine-tool accessories			Special-industry machinery (except metalworking machinery)			General industrial machinery			Office and store machines and devices			
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	
1949: Average.....	\$50.15	39.3	\$1.505	\$61.85	39.8	\$1.554	\$64.16	39.7	\$1.616	\$60.57	40.3	\$1.503	\$59.53	39.5	\$1.507	\$62.53	39.5	\$1.583	
1950: Average.....	69.72	43.2	1.614	70.54	42.7	1.652	74.69	43.5	1.717	65.74	41.7	1.569	66.33	41.9	1.583	66.95	41.1	1.629	
1950: April.....	64.69	41.6	1.555	68.95	42.2	1.631	69.56	41.8	1.654	62.65	41.0	1.528	62.01	40.4	1.535	63.60	40.1	1.586	
May.....	65.46	41.8	1.566	69.69	42.6	1.636	72.25	42.8	1.688	63.55	41.4	1.535	63.89	41.3	1.547	63.96	40.1	1.595	
June.....	66.58	42.3	1.574	70.10	42.9	1.634	74.34	43.6	1.705	63.91	41.5	1.540	64.43	41.3	1.560	64.52	40.5	1.593	
July.....	66.88	42.3	1.581	71.87	43.4	1.636	76.69	44.2	1.735	63.92	41.4	1.544	65.99	41.9	1.575	65.85	40.9	1.610	
August.....	71.16	44.2	1.610	73.01	44.3	1.648	76.16	44.0	1.731	65.75	42.2	1.558	66.65	42.4	1.572	67.63	41.8	1.618	
September.....	72.24	44.1	1.638	71.64	42.9	1.670	75.64	43.9	1.723	67.44	42.6	1.583	68.91	42.8	1.610	69.55	42.0	1.656	
October.....	76.78	45.7	1.680	73.12	43.6	1.677	82.72	45.6	1.814	69.49	43.0	1.616	71.39	43.8	1.630	70.89	42.3	1.676	
November.....	77.51	45.7	1.698	73.69	43.4	1.698	81.26	45.6	1.782	70.86	43.1	1.644	72.23	43.8	1.649	71.11	42.2	1.685	
December.....	80.86	46.9	1.724	76.51	44.2	1.731	82.30	45.9	1.793	73.25	44.1	1.661	74.49	44.5	1.674	73.27	42.9	1.708	
1951: January.....	81.78	47.3	1.729	76.91	43.5	1.768	82.62	45.8	1.804	73.80	43.9	1.681	74.32	44.0	1.689	71.82	42.1	1.706	
February.....	82.65	47.5	1.740	79.83	44.6	1.790	84.17	46.4	1.814	74.59	43.9	1.699	75.19	44.1	1.705	72.46	42.4	1.709	
March.....	83.27	47.5	1.753	80.24	44.7	1.795	86.20	47.1	1.854	75.85	44.2	1.698	76.89	44.2	1.717	73.35	42.4	1.730	
April.....	84.03	47.7	1.762	82.63	45.7	1.808	86.90	47.1	1.845	75.78	44.5	1.703	77.16	44.6	1.730	73.48	42.4	1.733	
Manufacturing—Continued																			
Machinery (except electrical)—Continued																			
Year and month	Computing machines and cash registers			Typewriters			Service-industry and household machines			Refrigerators and air-conditioning units			Miscellaneous machinery parts			Ball and roller bearings*			
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	
1949: Average.....	\$67.87	39.9	\$1.701	\$56.04	39.0	\$1.437	\$60.66	39.7	\$1.528	\$59.98	39.0	\$1.538	\$57.59	38.6	\$1.492	\$57.53	38.1	\$1.610	
1950: Average.....	71.70	40.9	1.753	62.08	41.5	1.496	67.26	41.7	1.613	66.42	41.1	1.616	66.15	42.0	1.575	68.55	42.5	1.613	
1950: April.....	68.96	40.0	1.714	57.41	39.7	1.446	65.88	41.8	1.576	66.29	41.8	1.586	63.05	41.1	1.534	66.86	42.4	1.677	
May.....	69.20	40.3	1.717	58.19	40.1	1.451	67.20	42.4	1.585	68.50	43.0	1.593	62.42	40.8	1.530	63.47	41.0	1.548	
June.....	69.58	40.5	1.718	58.33	40.2	1.451	67.55	42.3	1.597	68.02	42.3	1.608	63.22	41.0	1.542	63.39	40.4	1.569	
July.....	71.07	40.8	1.742	60.63	41.3	1.466	67.17	41.9	1.603	67.67	41.8	1.619	65.21	41.8	1.560	65.30	41.3	1.581	
August.....	72.19	41.3	1.748	63.90	42.8	1.493	66.93	41.6	1.609	69.22	40.8	1.623	67.54	42.8	1.578	70.03	43.6	1.620	
September.....	74.56	41.7	1.788	66.60	43.5	1.531	67.90	41.4	1.640	64.95	39.7	1.635	68.08	42.9	1.601	71.36	43.3	1.648	
October.....	76.00	42.2	1.801	67.14	43.4	1.547	70.60	42.3	1.669	67.73	40.8	1.660	70.46	43.6	1.616	72.44	43.9	1.659	
November.....	73.80	41.3	1.789	69.61	44.0	1.582	70.26	41.6	1.689	68.45	40.5	1.690	71.30	43.5	1.639	74.90	44.4	1.687	
December.....	77.42	42.4	1.826	69.07	43.8	1.577	69.76	41.4	1.685	66.29	39.6	1.674	73.78	44.1	1.673	77.29	44.7	1.729	
1951: January.....	75.90	41.5	1.829	67.47	42.7	1.580	68.45	40.5	1.690	65.69	39.1	1.680	74.58	44.0	1.695	78.00	44.7	1.745	
February.....	76.90	42.0	1.831	68.23	43.1	1.583	70.88	41.4	1.712	68.59	40.3	1.702	73.26	43.4	1.688	73.23	42.7	1.715	
March.....	77.96	41.9	1.861	69.30	43.5	1.593	73.94	42.1	1.734	73.90	41.1	1.738	74.12	43.5	1.704	78.10	44.4	1.759	
April.....	77.48	41.7	1.858	68.72	43.3	1.587	70.73	41.0	1.725	69.45	40.1	1.732	74.21	43.5	1.706	77.31	44.1	1.733	
Manufacturing—Continued																			
Electrical machinery																			
Year and month	Machinery (except electrical)—Con.			Electrical machinery															
	Machine shops (job and repair)			Total: Electrical machinery			Electrical generating transmission, distribution, and industrial apparatus			Motors, generators, transformers, and industrial controls			Electrical equipment for vehicles			Communication equipment			
Year and month	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	
1949: Average.....	\$58.70	39.0	\$1.505	\$56.96	39.5	\$1.442	\$59.61	39.5	\$1.509	\$61.30	39.7	\$1.544	\$59.16	39.1	\$1.513	\$53.56	39.5	\$1.356	
1950: Average.....	65.18	41.7	1.563	60.83	41.1	1.480	63.75	41.1	1.551	64.90	41.1	1.579	66.22	41.7	1.588	56.20	40.9	1.374	
1950: April.....	61.92	40.6	1.525	58.71	40.6	1.446	60.97	40.3	1.513	62.65	40.6	1.543	64.78	41.9	1.546	54.23	40.5	1.339	
May.....	62.72	41.1	1.526	59.28	40.8	1.453	61.85	40.8	1.516	63.19	40.9	1.545	66.12	43.8	1.578	53.77	40.1	1.341	
June.....	63.86	41.0	1.535	58.62	40.4	1.451	61.95	40.7	1.522	63.05	40.6	1.553	66.40	42.0	1.581	54.11	40.2	1.346	
July.....	64.89	41.7	1.556	59.44	40.6	1.464	62.52	40.6	1.540	63.94	40.7	1.571	65.78	41.4	1.589	54.43	40.5	1.344	
August.....	66.06	42.4	1.558	60.15	41.0	1.467	64.25	41.4	1.552	65.30	41.3	1.581	66.41	41.9	1.585	55.11	40.7	1.354	
September.....	65.79	41.8	1.574	61.48	41.4	1.485	64.85	41.6	1.559	65.45	41.4	1.581	67.33	41.9	1.607	56.69	41.2	1.376	
October.....	68.79	43.1	1.595	64.12	42.1	1.523	67.35	42.2	1.596	68.36	42.2	1.620	70.44	42.9	1.642	59.02	41.8	1.412	
November.....	69.54	42.9	1.621	64.33	41.8	1.539	68.48	42.3	1.619	69.13	42.1	1.642	67.89	41.5	1.636	58.83	41.2	1.428	
December.....	72.63	44.1	1.647	65.15	41.9	1.555	69.03	42.3	1.632	69.68	42.1	1.655	69.85	41.9	1.667	59.76	41.5	1.440	
1951: January.....	73.59	43.7	1.684	64.42	41.4	1.556	68.38	41.9	1.632	69.60	41.8	1.665	66.22	40.5	1.635	60.22	41.3	1.458	
February.....	74.69	44.3	1.686	64.80	41.3	1.569	68.72	41.7	1.648	69.60	41.6	1.672	65.36	39.9	1.638	60.61	41.2	1.471	
March.....	71.27	42.4	1.684	65.49	41.4	1.582	69.93	41.9	1.699	71.27	42.0	1.697	67.10	40.3	1.665	61.13	41.5	1.473	
April.....	72.46	42.7	1.697	66.11	41.5	1.593	69.72	41.8	1.698	70.98	41.8	1.698	67.55	40.5	1.668	61.30	41.5	1.475	

See footnotes at end of table.



TABLE C-1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees<sup>1</sup>—Con.

Year and month	Manufacturing—Continued																	
	Electrical machinery—Continued									Transportation equipment								
	Radios, phono- graphs, television sets, and equip- ment			Telephone and tele- graph equipment			Electrical appliances, lamps, and miscel- laneous products			Total: Transporta- tion equipment			Automobiles			Aircraft and parts		
	Ave. wkly. earn- ings	Ave. wkly. hours	Ave. hrly. earn- ings	Ave. wkly. earn- ings	Ave. wkly. hours	Ave. hrly. earn- ings	Ave. wkly. earn- ings	Ave. wkly. hours	Ave. hrly. earn- ings	Ave. wkly. earn- ings	Ave. wkly. hours	Ave. hrly. earn- ings	Ave. wkly. earn- ings	Ave. wkly. hours	Ave. hrly. earn- ings	Ave. wkly. earn- ings	Ave. wkly. hours	Ave. hrly. earn- ings
1949: Average.....	\$50.68	39.5	\$1.283	\$61.43	39.3	\$1.563	\$56.72	40.1	\$1.431	\$64.95	39.2	\$1.657	\$65.97	38.9	\$1.696	\$63.62	40.6	\$1.567
1950: Average.....	53.85	40.7	1.323	65.94	40.1	1.642	61.08	41.0	1.502	71.18	41.0	1.736	73.25	41.2	1.778	68.39	41.6	1.644
1950: April.....	52.21	40.6	1.296	63.75	39.4	1.618	60.34	40.8	1.479	70.46	41.3	1.706	73.77	42.2	1.748	64.96	40.3	1.612
May.....	51.82	40.2	1.280	64.25	39.6	1.622	60.60	41.0	1.478	69.62	41.0	1.698	71.66	41.4	1.731	65.61	40.8	1.608
June.....	51.93	40.1	1.295	64.64	39.8	1.624	57.62	39.6	1.455	72.53	42.0	1.727	75.76	42.8	1.770	65.32	40.7	1.605
July.....	52.37	40.5	1.293	64.03	39.6	1.617	60.30	40.5	1.480	71.71	41.5	1.728	74.35	42.1	1.766	66.54	41.2	1.615
August.....	52.80	40.5	1.306	65.44	40.0	1.636	59.74	40.5	1.475	72.87	42.0	1.733	75.21	42.3	1.778	68.94	42.1	1.626
September.....	54.44	40.9	1.331	67.11	40.7	1.649	62.43	41.4	1.508	72.39	40.9	1.770	73.81	40.6	1.818	71.18	42.7	1.667
October.....	57.03	41.6	1.371	67.61	40.8	1.657	65.71	42.2	1.557	73.02	41.7	1.781	75.21	41.1	1.830	70.18	41.9	1.675
November.....	56.32	40.9	1.377	70.39	40.9	1.721	66.18	42.1	1.572	71.78	40.1	1.790	72.76	39.5	1.842	71.78	42.4	1.693
December.....	56.96	41.1	1.396	71.93	41.6	1.729	67.14	42.2	1.591	75.18	41.4	1.816	76.28	40.9	1.865	75.08	43.3	1.734
1951: January.....	57.32	40.8	1.405	71.31	41.1	1.735	64.80	41.3	1.569	72.06	39.9	1.806	71.48	38.7	1.847	76.78	43.7	1.757
February.....	57.31	40.5	1.415	72.97	41.6	1.754	65.38	41.3	1.583	74.05	40.8	1.815	74.29	39.9	1.862	75.86	43.3	1.752
March.....	57.63	40.7	1.416	75.74	42.6	1.775	65.11	40.9	1.592	75.58	41.1	1.839	75.83	40.1	1.891	77.35	43.9	1.762
April.....	57.35	40.5	1.416	77.16	43.3	1.782	67.12	41.1	1.633	74.58	40.8	1.828	74.25	39.6	1.875	77.31	44.0	1.757
Year and month	Manufacturing—Continued																	
	Transportation equipment—Continued																	
	Aircraft			Aircraft engines and parts			Aircraft propellers and parts			Other aircraft parts and equipment			Ship and boat build- ing and repairing			Shipbuilding and repairing		
	Ave. wkly. earn- ings	Ave. wkly. hours	Ave. hrly. earn- ings	Ave. wkly. earn- ings	Ave. wkly. hours	Ave. hrly. earn- ings	Ave. wkly. earn- ings	Ave. wkly. hours	Ave. hrly. earn- ings	Ave. wkly. earn- ings	Ave. wkly. hours	Ave. hrly. earn- ings	Ave. wkly. earn- ings	Ave. wkly. hours	Ave. hrly. earn- ings	Ave. wkly. earn- ings	Ave. wkly. hours	Ave. hrly. earn- ings
1949: Average.....	\$62.69	40.5	\$1.548	\$65.24	40.7	\$1.603	\$66.83	41.0	\$1.630	\$65.08	40.4	\$1.611	\$61.67	38.0	\$1.623	\$61.88	37.8	\$1.637
1950: Average.....	67.15	41.4	1.622	71.40	42.1	1.696	73.90	42.4	1.743	70.81	41.7	1.698	63.28	38.4	1.648	63.83	38.2	1.671
1950: April.....	64.24	40.2	1.598	69.10	40.7	1.624	67.06	40.3	1.664	67.06	40.4	1.690	62.08	37.9	1.638	62.57	37.6	1.664
May.....	64.68	40.6	1.593	68.35	41.6	1.643	63.85	39.1	1.633	67.73	40.9	1.656	63.21	38.4	1.646	64.02	38.2	1.676
June.....	64.48	40.5	1.592	67.85	41.5	1.635	67.25	40.2	1.673	67.06	40.9	1.662	62.39	38.3	1.629	62.91	37.9	1.660
July.....	64.99	40.8	1.593	70.92	42.7	1.661	71.87	42.2	1.703	69.04	41.0	1.684	64.20	38.1	1.695	65.04	37.9	1.716
August.....	68.29	42.6	1.603	70.94	42.1	1.685	78.68	44.4	1.772	68.22	40.8	1.672	64.84	39.2	1.654	65.62	39.2	1.674
September.....	70.50	42.7	1.651	74.59	43.8	1.703	77.62	43.9	1.768	67.53	39.7	1.701	62.89	38.3	1.642	63.36	38.1	1.663
October.....	69.17	42.1	1.643	69.48	39.7	1.750	81.17	44.6	1.820	77.08	43.6	1.768	62.89	38.3	1.642	63.23	38.0	1.664
November.....	68.72	41.5	1.656	80.82	45.0	1.796	80.67	43.3	1.863	75.91	43.6	1.741	64.47	38.7	1.666	65.08	38.6	1.686
December.....	72.08	42.6	1.692	83.01	44.8	1.853	88.54	45.9	1.929	79.57	44.6	1.784	66.67	39.9	1.671	67.34	39.8	1.692
1951: January.....	74.52	43.2	1.725	82.94	45.1	1.839	87.11	45.3	1.923	80.06	44.8	1.787	64.24	38.7	1.660	64.73	38.6	1.677
February.....	73.49	42.7	1.721	83.49	45.3	1.843	90.01	46.3	1.944	78.10	44.1	1.771	68.80	40.4	1.703	69.41	40.4	1.718
March.....	74.82	43.4	1.724	85.86	45.5	1.887	90.27	46.2	1.954	78.28	44.1	1.775	68.03	39.9	1.705	68.58	39.8	1.723
April.....	74.60	43.5	1.715	86.99	46.0	1.891	89.98	46.6	1.931	79.21	44.2	1.792	67.56	39.6	1.708	68.08	39.4	1.728
Year and month	Manufacturing—Continued																	
	Transportation equipment—Continued																	
	Boat building and repairing			Railroad equipment			Locomotives and parts			Railroad and street- cars			Other transportation equipment			Total: Instruments and related products		
	Ave. wkly. earn- ings	Ave. wkly. hours	Ave. hrly. earn- ings	Ave. wkly. earn- ings	Ave. wkly. hours	Ave. hrly. earn- ings	Ave. wkly. earn- ings	Ave. wkly. hours	Ave. hrly. earn- ings	Ave. wkly. earn- ings	Ave. wkly. hours	Ave. hrly. earn- ings	Ave. wkly. earn- ings	Ave. wkly. hours	Ave. hrly. earn- ings	Ave. wkly. earn- ings	Ave. wkly. hours	Ave. hrly. earn- ings
1949: Average.....	\$54.84	40.5	\$1.354	\$63.54	39.2	\$1.621	\$65.47	39.3	\$1.666	\$61.70	38.9	\$1.586	\$57.60	39.7	\$1.451	\$55.28	39.6	\$1.396
1950: Average.....	55.90	40.6	1.379	66.33	39.6	1.675	70.00	40.3	1.737	62.47	38.9	1.606	64.44	41.9	1.538	60.81	41.2	1.476
1950: April.....	55.08	40.5	1.360	64.52	39.2	1.646	67.46	40.2	1.678	61.10	38.1	1.606	58.58	39.5	1.483	57.52	40.0	1.438
May.....	55.34	40.9	1.353	64.99	39.4	1.633	64.56	40.9	1.677	61.02	38.5	1.585	60.22	40.2	1.498	58.34	40.4	1.444
June.....	56.62	42.0	1.348	64.56	39.2	1.647	67.80	39.5	1.718	61.58	39.0	1.579	61.06	40.9	1.493	58.93	40.7	1.445
July.....	56.24	40.9	1.375	64.40	39.1	1.647	68.64	40.4	1.699	60.14	37.8	1.591	60.09	40.3	1.491	58.98	40.9	1.442
August.....	55.70	39.9	1.396	65.29	38.5	1.653	68.68	40.0	1.717	61.85	39.0	1.586	60.30	39.8	1.515	61.13	41.7	1.466
September.....	55.50	40.1	1.384	68.72	40.4	1.701	73.05	40.9	1.786	64.12	39.8	1.611	73.88	46.0	1.606	63.58	42.5	1.490
October.....	57.12	41.3	1.383	69.04	40.0	1.726	74.74	41.0	1.823	62.86	38.9	1.616	69.86	43.5	1.606	64.77	42.5	1.524
November.....	56.54	40.1	1.410	69.51	40.2	1.729	73.53	40.4	1.820	65.36	40.1	1.630	70.73	44.4	1.593	65.47	42.4	1.544
December.....	58.06	40.8	1.433	72.52	40.9	1.773	76.39	40.7	1.877	67.98	41.0	1.658	71.96	44.5	1.617	66.78	42.6	1.567
1951: January.....	58.90	40.4	1.458	72.41	41.0	1.766	75.96	40.6	1.871	67.90	41.1	1.652	66.14	41.7	1.586	65.79	41.8	1.574
February.....	57.72	39.0	1.480	71.16	40.8	1.744	75.35	41.7	1.807	66.97	39.7	1.687	67.48	42.2	1.596	67.06	42.2	1.589
March.....	58.56	40.0	1.489	73.35	41.2	1.829	82.40	42.3	1.945	68.19	40.3	1.692	69.12	43.2	1.600	67.72	42.3	1.601
April.....	60.07	41.0	1.465	76.86	41.3	1.861	83.27	42.1	1.978	70.59	40.9	1.726	64.53	41.0	1.574	67.92	42.1	1.602

See footnotes at end of table.



TABLE C-1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees <sup>1</sup>-Con.

Year and month	Manufacturing—Continued														
	Instruments and related products—Continued														
	Ophthalmic goods			Photographic apparatus			Watches and clocks			Professional and scientific instruments			Miscellaneous manufacturing industries		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1949: Average	\$47.04	39.6	\$1.188	\$59.91	39.7	\$1.509	\$49.53	39.0	\$1.270	\$57.01	39.7	\$1.436	\$50.23	39.9	\$1.259
1950: Average	50.88	40.7	1.250	65.59	41.2	1.592	53.25	39.8	1.338	63.01	41.7	1.511	54.04	41.0	1.318
1950: April	47.63	39.2	1.215	63.05	40.6	1.553	50.01	38.5	1.299	56.59	40.4	1.475	51.94	40.2	1.292
May	49.74	40.6	1.225	63.21	40.7	1.553	49.97	38.2	1.308	60.42	40.8	1.481	52.47	40.3	1.302
June	51.21	41.2	1.243	63.53	40.7	1.561	49.72	38.1	1.305	61.08	41.5	1.479	52.69	40.5	1.301
July	51.13	40.9	1.250	63.32	40.8	1.552	51.25	39.0	1.314	60.82	41.4	1.469	52.47	40.3	1.302
August	52.17	41.6	1.254	65.72	41.7	1.576	51.98	39.8	1.306	63.11	42.1	1.499	54.87	41.6	1.319
September	52.17	41.6	1.254	69.15	42.4	1.631	55.15	40.7	1.355	65.73	43.1	1.525	56.04	42.1	1.331
October	54.13	41.7	1.298	69.22	42.0	1.648	58.06	41.8	1.389	66.78	43.0	1.553	56.98	42.3	1.347
November	54.50	41.6	1.310	69.60	41.8	1.665	59.47	42.0	1.416	67.57	42.9	1.573	57.01	42.2	1.351
December	55.70	42.1	1.323	70.85	42.2	1.679	59.40	41.6	1.428	69.18	43.1	1.605	57.90	41.7	1.359
1951: January	55.47	41.8	1.327	70.56	41.8	1.688	55.61	38.7	1.437	68.43	42.5	1.610	57.37	41.3	1.389
February	55.66	41.6	1.336	72.76	42.3	1.720	58.77	41.1	1.430	69.11	42.5	1.626	58.41	41.6	1.404
March	55.74	41.6	1.340	72.16	42.1	1.714	60.26	41.7	1.445	70.08	42.6	1.645	58.41	41.6	1.404
April	56.36	41.5	1.358	73.40	41.8	1.756	60.49	41.6	1.454	69.84	42.9	1.628	58.07	41.3	1.406
Year and month	Manufacturing—Continued														
	Miscellaneous manufacturing industries—Continued														
	Jewelry, silverware, and plated ware			Jewelry and findings			Silverware and plated ware			Toys and sporting goods			Costume jewelry, buttons, notions		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1949: Average	\$55.06	41.4	\$1.330	\$51.33	40.8	\$1.258	\$58.30	42.0	\$1.388	\$47.00	39.1	\$1.202	\$46.06	39.3	\$1.172
1950: Average	59.45	42.8	1.389	54.25	41.6	1.304	64.08	43.8	1.453	50.98	40.4	1.262	49.52	40.0	1.238
1950: April	56.16	41.2	1.363	51.89	40.1	1.294	59.74	42.1	1.419	49.88	39.9	1.250	47.54	38.9	1.222
May	56.40	41.5	1.359	52.50	40.7	1.290	59.57	42.1	1.415	49.84	40.0	1.246	47.58	39.0	1.220
June	56.00	41.3	1.356	51.55	40.4	1.276	59.74	42.1	1.419	49.56	39.9	1.242	47.34	38.8	1.220
July	56.25	41.3	1.362	50.12	39.4	1.272	61.10	42.7	1.431	49.27	39.7	1.241	48.09	39.1	1.230
August	59.98	43.4	1.382	53.68	42.0	1.278	65.42	44.5	1.470	51.90	40.9	1.269	50.55	40.7	1.242
September	63.48	44.8	1.417	57.06	43.0	1.327	69.56	46.5	1.496	52.11	41.1	1.288	51.42	41.2	1.248
October	65.06	44.9	1.449	59.03	43.5	1.357	70.93	46.3	1.532	53.42	41.7	1.281	51.40	40.6	1.266
November	65.19	44.9	1.452	58.37	43.4	1.345	71.56	46.2	1.549	53.90	41.4	1.302	52.66	41.3	1.275
December	63.52	43.9	1.447	58.14	43.0	1.352	68.48	44.7	1.532	53.49	40.4	1.324	53.41	41.4	1.280
1951: January	62.99	43.2	1.442	58.32	43.2	1.350	66.27	43.2	1.534	53.20	40.0	1.320	53.58	40.9	1.310
February	64.08	43.5	1.473	59.79	43.2	1.384	68.20	43.8	1.557	54.10	39.9	1.356	54.24	41.5	1.307
March	62.74	42.8	1.466	58.43	42.9	1.362	67.44	43.2	1.561	54.16	40.0	1.354	53.49	40.8	1.311
April	62.24	42.0	1.492	57.85	41.5	1.394	66.99	43.0	1.558	53.65	40.1	1.338	52.76	40.0	1.319
Year and month	Manufacturing—Con.														
	Transportation and public utilities														
	Miscellaneous manufacturing industries—Con.			Class I railroads <sup>1</sup>			Local railways and bus lines <sup>1</sup>			Telephones <sup>1</sup>			Switchboard operating employees <sup>1</sup>		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1949: Average	\$51.20	40.0	\$1.280	\$61.73	43.5	\$1.419	\$64.61	44.9	\$1.439	\$51.78	38.5	\$1.345	—	—	—
1950: Average	54.91	41.1	1.336	63.20	40.8	1.549	66.96	45.0	1.488	54.38	38.9	1.398	\$46.65	37.5	\$1.244
1950: April	52.55	40.3	1.304	61.69	39.9	1.546	65.90	44.5	1.481	53.44	38.7	1.381	46.19	37.4	1.235
May	53.45	40.4	1.323	61.75	40.2	1.536	66.56	44.8	1.486	53.72	38.9	1.381	46.20	37.5	1.232
June	53.98	40.8	1.323	64.19	41.9	1.532	67.41	45.3	1.488	54.19	39.1	1.386	46.61	37.8	1.233
July	53.67	40.6	1.322	61.19	39.4	1.553	67.47	45.1	1.496	54.96	39.4	1.395	47.73	38.4	1.243
August	55.62	41.6	1.337	65.46	42.7	1.533	66.84	44.8	1.492	54.71	38.3	1.392	47.90	38.6	1.241
September	56.66	42.0	1.349	63.18	40.5	1.560	67.42	45.1	1.495	55.80	39.6	1.409	48.00	38.4	1.250
October	57.75	42.4	1.362	64.54	41.8	1.544	67.77	45.3	1.496	56.18	39.4	1.426	49.00	38.4	1.276
November	57.30	42.1	1.361	64.63	41.4	1.561	68.26	45.6	1.497	54.04	38.0	1.422	44.93	36.0	1.248
December	58.25	41.7	1.397	65.00	40.6	1.575	69.96	46.3	1.511	56.30	39.1	1.440	47.37	37.3	1.270
1951: January	58.37	41.4	1.410	67.86	42.2	1.608	70.23	45.9	1.530	56.41	38.9	1.450	47.78	37.3	1.281
February	59.34	41.7	1.425	69.50	41.2	1.687	70.66	46.0	1.536	57.58	39.2	1.469	49.09	37.7	1.302
March	59.67	41.9	1.424	—	—	—	70.41	45.6	1.544	56.52	38.9	1.453	47.90	37.4	1.277
April	59.51	41.7	1.427	—	—	—	70.70	45.7	1.547	56.12	38.7	1.450	47.41	37.3	1.271

See footnotes at end of table.



TABLE C-1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees<sup>1</sup>—Con.

Year and month	Transportation and public utilities—Continued														
	Communication						Other public utilities								
	Line construction, installation, and maintenance employees †			Telegraph †			Gas and electric utilities			Electric light and power utilities			Gas utilities †		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1949: Average.....				\$62.85	44.7	\$1.406	\$63.99	41.5	\$1.542	\$64.91	41.5	\$1.564	\$63.37	41.5	\$1.527
1950: Average.....	\$73.30	42.1	\$1.741	64.19	44.7	1.436	66.60	41.6	1.601	67.81	41.6	1.630	65.37	41.5	1.527
1950: April.....	70.76	41.6	1.701	64.13	44.6	1.438	65.17	41.3	1.578	64.97	41.2	1.577	61.93	40.8	1.508
May.....	71.48	41.8	1.710	65.38	45.4	1.440	65.17	41.3	1.578	65.09	41.3	1.576	61.58	41.0	1.502
June.....	72.28	42.0	1.721	64.21	44.9	1.430	65.99	41.5	1.590	65.74	41.4	1.588	61.62	41.0	1.503
July.....	72.96	42.1	1.733	64.13	45.0	1.425	66.52	41.6	1.599	68.13	41.8	1.630	62.07	41.0	1.514
August.....	72.64	41.7	1.742	63.99	45.0	1.422	65.65	41.5	1.582	66.39	41.6	1.603	62.61	41.3	1.516
September.....	78.02	42.9	1.772	64.49	44.6	1.446	67.35	41.6	1.619	68.60	41.6	1.640	63.99	41.5	1.542
October.....	75.91	42.5	1.786	64.74	44.8	1.445	67.93	41.8	1.625	69.18	41.8	1.655	64.86	41.9	1.548
November.....	74.37	41.5	1.792	64.25	44.4	1.447	68.68	41.8	1.643	69.97	41.6	1.682	66.20	42.3	1.565
December.....	77.72	42.8	1.816	65.05	44.8	1.452	70.14	42.0	1.670	71.31	41.7	1.710	66.73	42.1	1.585
1951: January.....	77.13	42.4	1.819	64.57	44.5	1.451	70.27	41.8	1.681	71.18	41.7	1.707	68.15	42.2	1.615
February.....	79.74	43.1	1.850	64.86	44.7	1.451	71.36	42.0	1.699	72.50	42.1	1.722	70.04	42.5	1.648
March.....	78.47	42.6	1.842	64.63	44.6	1.449	70.28	41.5	1.693	71.81	41.7	1.722	67.07	41.3	1.624
April.....	77.69	42.2	1.841	64.36	44.6	1.443	70.47	41.6	1.694	71.18	41.6	1.711	67.03	41.1	1.631
Transportation and public utilities—Con.															
Trade															
Other public utilities—Con.															
Retail trade															
Wholesale trade															
Electric light and gas utilities combined †															
Retail trade (except eating and drinking places)															
General merchandise stores															
Department stores and general mail-order houses															
1949: Average.....	\$67.02	41.6	\$1.611	\$57.55	40.7	\$1.414	\$45.98	40.4	\$1.137	\$34.87	36.7	\$0.950	\$39.31	37.8	\$1.040
1950: Average.....	67.02	41.6	1.611	60.36	40.7	1.483	47.63	40.5	1.176	33.95	36.8	.977	41.56	38.2	1.088
1950: April.....	65.31	41.1	1.589	58.79	40.1	1.466	46.47	40.2	1.156	34.66	36.1	.969	39.83	37.4	1.065
May.....	65.62	41.4	1.585	59.11	40.4	1.463	46.94	40.4	1.162	35.49	36.4	.975	40.82	37.8	1.060
June.....	66.93	41.6	1.609	59.93	40.6	1.476	48.06	40.9	1.175	36.60	37.2	.984	41.86	38.3	1.093
July.....	67.26	41.7	1.613	61.10	40.9	1.494	48.99	41.2	1.189	37.32	37.7	.990	42.58	38.6	1.103
August.....	66.81	41.6	1.606	60.90	40.9	1.489	48.99	41.1	1.192	37.06	37.4	.991	42.33	38.2	1.108
September.....	68.05	41.7	1.632	60.93	40.7	1.497	48.48	40.4	1.200	36.11	36.4	.992	42.03	37.8	1.112
October.....	68.47	41.8	1.638	61.58	40.9	1.508	48.52	40.3	1.199	36.01	36.3	.992	42.03	37.9	1.109
November.....	68.68	41.8	1.643	61.58	40.8	1.519	47.92	40.0	1.188	35.24	36.0	.979	41.24	37.8	1.091
December.....	71.02	42.4	1.675	63.49	41.2	1.541	48.31	40.7	1.187	37.02	38.2	.969	45.05	40.7	1.107
1951: January.....	70.64	41.8	1.690	63.44	40.8	1.555	49.83	40.3	1.237	38.02	36.7	1.096	44.58	38.2	1.167
February.....	70.80	41.6	1.702	63.62	40.6	1.567	49.96	40.1	1.236	37.43	36.3	1.031	43.70	37.8	1.156
March.....	70.17	41.3	1.696	63.62	40.6	1.567	49.03	39.8	1.232	36.48	35.8	1.019	43.01	37.4	1.150
April.....	71.56	41.8	1.712	64.10	40.7	1.575	49.88	40.0	1.247	36.95	35.8	1.032	43.38	37.3	1.163
Trade—Continued															
Retail trade—Continued															
Other retail trade															
Food and liquor stores															
Automotive and accessories dealers															
Apparel and accessories stores															
Furniture and appliance stores															
Lumber and hardware-supply stores															
1949: Average.....	\$49.93	40.2	\$1.242	\$58.92	45.6	\$1.292	\$40.06	36.7	\$1.108	\$32.30	43.4	\$1.228	\$51.84	43.6	\$1.189
1950: Average.....	51.79	40.4	1.282	61.65	45.7	1.349	40.70	36.5	1.115	56.12	43.5	1.290	54.62	43.8	1.217
1950: April.....	50.93	40.1	1.270	60.36	45.8	1.318	40.17	35.9	1.109	54.21	43.4	1.249	52.84	43.4	1.262
May.....	50.81	40.1	1.267	60.50	45.9	1.318	40.37	36.5	1.106	54.89	43.6	1.259	54.08	43.9	1.232
June.....	51.82	40.8	1.270	62.29	45.9	1.337	40.92	36.8	1.112	55.67	43.7	1.274	55.06	44.4	1.240
July.....	53.37	41.5	1.286	63.71	45.7	1.394	40.77	36.9	1.105	56.16	43.5	1.291	55.53	44.3	1.254
August.....	53.04	41.5	1.278	63.66	45.6	1.396	40.70	37.0	1.100	57.03	43.5	1.311	55.91	44.2	1.265
September.....	52.12	40.4	1.290	63.52	45.6	1.393	40.98	36.2	1.132	58.07	43.4	1.338	56.36	44.1	1.278
October.....	51.80	40.0	1.295	63.94	45.9	1.393	40.95	36.3	1.128	57.68	43.5	1.329	56.93	44.1	1.291
November.....	52.40	40.0	1.310	63.07	45.8	1.377	40.65	36.1	1.126	57.90	43.5	1.331	55.98	43.6	1.294
December.....	52.91	40.3	1.313	63.53	46.0	1.384	42.17	36.7	1.149	60.18	43.8	1.374	56.97	44.3	1.286
1951: January.....	53.15	39.9	1.332	64.48	45.7	1.411	42.81	36.5	1.173	58.99	43.5	1.356	56.68	43.5	1.303
February.....	52.69	39.5	1.334	65.16	45.5	1.432	41.40	36.0	1.150	58.31	43.1	1.353	56.70	43.2	1.314
March.....	52.62	39.3	1.339	65.38	45.4	1.440	40.83	35.5	1.150	58.22	43.0	1.354	56.85	43.3	1.313
April.....	53.18	39.6	1.343	66.10	45.4	1.456	41.42	35.8	1.157	58.82	43.0	1.368	58.26	43.9	1.327

See footnotes at end of table.



TABLE C-1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees<sup>1</sup>—Con.

Year and month	Finance <sup>10</sup>			Service										Motion-picture production and distribution <sup>11</sup>
	Banks and trust companies	Security dealers and exchanges	Insurance carriers	Hotels, year-round <sup>11</sup>			Laundries			Cleaning and dyeing plants				
				Avg. wkly. earnings	Avg. wkly. earnings	Avg. wkly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. wkly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. wkly. earnings	Avg. wkly. hours	
1949: Average	\$43.64	\$58.32	\$56.47	\$32.84	44.2	\$3.743	\$34.98	41.5	\$0.843	\$40.71	41.2	\$0.988	\$52.17	
1950: Average	46.44	61.48	58.49	33.55	43.9	.771	35.47	41.2	.861	41.69	41.2	1.012	92.79	
1950: April	45.93	53.53	58.16	33.26	44.0	.756	34.85	41.0	.850	40.48	40.4	1.002	91.23	
May	45.54	52.70	58.02	33.34	44.1	.756	35.74	41.7	.857	43.69	43.0	1.016	94.09	
June	45.42	51.31	58.05	33.33	43.8	.761	36.33	42.0	.865	44.03	43.0	1.024	94.73	
July	46.34	70.88	59.09	33.51	43.8	.765	35.61	41.5	.858	43.02	41.4	1.015	91.64	
August	46.38	70.09	58.81	33.52	44.0	.771	34.83	40.6	.858	40.18	40.0	1.004	90.70	
September	46.75	70.29	58.20	34.30	43.8	.783	35.93	41.3	.870	42.56	41.6	1.023	93.44	
October	47.78	84.94	58.91	34.67	44.0	.788	35.79	41.0	.873	42.15	41.0	1.028	95.08	
November	48.18	85.62	59.27	34.74	43.7	.795	35.86	40.8	.879	42.23	41.2	1.025	95.58	
December	48.66	87.34	60.60	35.16	43.9	.801	36.38	41.2	.883	42.29	41.1	1.029	98.39	
1951: January	49.28	89.87	61.71	34.80	43.4	.804	38.70	41.0	.895	43.35	41.4	1.047	97.01	
February	49.55	90.95	61.26	35.04	43.2	.811	36.25	40.5	.895	41.78	40.1	1.042	94.46	
March	49.46	85.95	61.24	34.65	43.2	.802	36.94	41.0	.901	44.20	41.9	1.055	98.87	
April	49.53	84.13	61.86	35.06	43.5	.806	37.41	41.2	.908	44.96	42.3	1.063	101.61	

<sup>1</sup> These figures are based on reports from cooperating establishments covering both full- and part-time employees who worked during, or received pay for, the pay period ending nearest the 15th of the month. For the mining, manufacturing, laundries, and cleaning and dyeing plants industries, data relate to production and related workers only. For the remaining industries, unless otherwise noted, data relate to nonsupervisory employees and working supervisors. All series are available upon request to the Bureau of Labor Statistics. Such requests should specify which industry series are desired. Data for the three current months are subject to revision without notation; revised figures for earlier months will be identified by asterisks the first month they are published.

<sup>2</sup> Includes: ordnance and accessories; lumber and wood products (except furniture); furniture and fixtures; stone, clay, and glass products; primary metal industries; fabricated metal products (except ordnance, machinery, and transportation equipment); machinery (except electrical); electrical machinery; transportation equipment; instruments and related products; miscellaneous manufacturing industries.

<sup>3</sup> Includes: food and kindred products; tobacco manufactures; textile-mill products; apparel and other finished textile products; paper and allied products; printing, publishing, and allied industries; chemicals and allied products; products of petroleum and coal; rubber products; leather and leather products.

<sup>4</sup> Data relate to hourly rated employees reported by individual railroads (exclusive of switching and terminal companies) to the Interstate Commerce Commission. Annual averages include any retroactive payments made, which are excluded from monthly averages.

<sup>5</sup> Data include privately and municipally operated local railways and bus lines.

<sup>6</sup> Through May 1949 the averages relate mainly to the hours and earnings of employees subject to the Fair Labor Standards Act. Beginning with June 1949 the averages relate to the hours and earnings of nonsupervisory employees. Data for June comparable with the earlier series are \$51.47, \$8.5 hours, and \$1.337.

<sup>7</sup> Data relate to employees in such occupations in the telephone industry as switchboard operators, service assistants, operating room instructors, and pay-station attendants. During 1950 such employees made up 46 percent of the total number of nonsupervisory employees in telephone establishments reporting hours and earnings data.

<sup>8</sup> Data relate to employees in such occupations in the telephone industry as central office craftsmen; installation and exchange repair craftsmen; line, cable, and conduit craftsmen; and laborers. During 1950 such employees made up 25 percent of the total number of nonsupervisory employees in telephone establishments reporting hours and earnings data.

<sup>9</sup> Data relate mainly to land-line employees, excluding employees compensated on a commission basis, general and divisional headquarters personnel, trainees in school, and messengers.

<sup>10</sup> Data on average weekly hours and average hourly earnings are not available.

<sup>11</sup> Money payments only; additional value of board, room, uniforms, and tips, not included.

\*New series; data are available from January 1947.

†New series; data are available from January 1950.

TABLE C-2: Gross Average Weekly Earnings of Production Workers in Selected Industries, in Current and 1939 Dollars<sup>1</sup>

Year and month	Manufacturing		Bituminous-coal mining		Laundries		Year and month	Manufacturing		Bituminous-coal mining		Laundries	
	Current dollars	1939 dollars	Current dollars	1939 dollars	Current dollars	1939 dollars		Current dollars	1939 dollars	Current dollars	1939 dollars	Current dollars	1939 dollars
1939: Average	\$23.86	\$23.86	\$23.86	\$23.86	\$17.69	\$17.69	1950: June	\$58.85	\$34.37	\$69.92	\$40.53	\$36.33	\$21.22
1941: Average	26.58	27.95	30.96	28.16	19.00	17.95	July	59.21	34.22	68.68	40.27	35.61	20.58
1945: Average	43.82	31.22	58.03	41.35	30.30	21.59	August	60.32	34.56	71.04	40.72	34.83	19.97
1946: Average	54.14	31.31	72.12	41.70	34.23	19.79	September	60.64	34.52	71.92	40.94	35.92	20.45
1949: Average	54.92	32.07	63.78	36.96	34.96	20.43	October	61.99	35.09	72.99	41.32	35.79	20.26
1950: Average	59.33	34.31	70.35	40.68	35.47	20.51	November	62.23	35.07	73.27	41.29	35.86	20.21
							December	63.88	35.31	77.77	43.23	36.38	20.22
1950: April	56.03	33.58	72.79	42.94	34.85	20.50	1951: January	63.76	34.92	76.63	41.97	36.70	20.10
May	57.54	33.78	68.37	40.14	35.74	20.98	February	63.84	34.92	75.67	40.92	36.25	19.60
							March	64.57	34.79	74.60	40.19	36.94	19.90
							April <sup>2</sup>	64.74	34.86	76.16	41.01	37.41	20.14

<sup>1</sup> These series indicate changes in the level of weekly earnings prior to and after adjustment for changes in purchasing power as determined from the Bureau's Consumers' Price Index, the year 1939 having been selected for the base period. Estimates of World War II and postwar underestimation by

the Consumers' Price Index were not included. See the Monthly Labor Review, March 1947, p. 498. Data from January 1939 are available upon request to the Bureau of Labor Statistics.

<sup>2</sup> Preliminary.



TABLE C-3: Gross and Net Spendable Average Weekly Earnings of Production Workers in Manufacturing Industries, in Current and 1939 Dollars<sup>1</sup>

Period	Gross average weekly earnings		Net spendable average weekly earnings			
			Worker with no dependents		Worker with 3 dependents	
	Amount	Index (1939=100)	Current dollars	1939 dollars	Current dollars	1939 dollars
1941: January.....	\$26.64	111.7	\$25.41	\$25.06	\$26.37	\$26.00
1941: July.....	47.50	190.1	39.40	39.76	45.17	35.27
1941: December.....	45.45	190.5	37.50	38.00	43.87	33.42
1940: June.....	43.31	181.5	37.30	37.77	42.78	31.85
1939: Average.....	23.80	100.0	23.58	23.58	23.62	23.62
1940: Average.....	25.20	105.6	24.69	24.49	24.95	24.75
1941: Average.....	29.58	124.0	28.05	28.51	29.28	27.67
1942: Average.....	36.65	153.6	31.77	32.08	36.28	30.93
1943: Average.....	43.14	180.8	38.01	38.94	41.59	33.26
1944: Average.....	46.06	190.1	38.29	39.25	44.06	34.84
1945: Average.....	44.39	186.0	36.97	38.58	42.74	33.04
1946: Average.....	43.82	183.7	37.72	38.88	43.20	33.78
1947: Average.....	49.97	206.4	42.76	43.63	48.24	39.04
1948: Average.....	54.14	226.9	47.43	47.43	53.17	40.75
1949: Average.....	54.62	230.2	48.09	48.09	53.53	41.44
1950: Average.....	59.33	248.7	51.09	51.09	57.21	43.08

Period	Gross average weekly earnings		Net spendable average weekly earnings			
			Worker with no dependents		Worker with 3 dependents	
	Amount	Index (1939=100)	Current dollars	1939 dollars	Current dollars	1939 dollars
1950: April.....	\$56.93	238.6	\$49.46	\$39.18	\$56.23	\$32.58
May.....	57.54	241.2	49.95	39.33	55.74	32.73
June.....	58.53	246.6	51.03	40.80	56.86	33.21
July.....	59.21	248.2	51.32	40.66	57.16	33.03
August.....	60.32	252.8	52.24	39.95	58.11	33.31
September.....	60.64	254.1	52.50	39.89	58.38	33.24
October.....	61.99	259.8	52.16	39.53	59.20	33.51
November.....	62.23	260.8	52.35	39.50	60.40	33.47
December.....	63.88	267.7	53.67	39.84	60.75	33.77
1951: January.....	63.76	267.2	53.49	39.29	60.56	33.17
February.....	63.84	267.6	53.55	38.96	60.62	32.78
March.....	64.57	270.0	54.13	39.16	61.21	32.96
April.....	64.74	271.3	54.26	39.22	61.35	33.03

<sup>1</sup> Net spendable average weekly earnings are obtained by deducting from gross average weekly earnings, social security and income taxes for which the specified type of worker is liable. The amount of income tax liability depends, of course, on the number of dependents supported by the worker as well as on the level of his gross income. Net spendable earnings have therefore, been computed for 2 types of income-receivers: (1) A worker with no dependents; (2) A worker with 3 dependents.

The computation of net spendable earnings for both factory worker with no dependents and the factory worker with 3 dependents are based upon the

gross average weekly earnings for all production workers in manufacturing industries without direct regard to marital status and family composition. The primary value of the spendable series is that of measuring relative changes in disposable earnings for 2 types of income-receivers. That series does not, therefore, reflect actual differences in levels of earnings for workers of varying age, occupation, skill, family composition, etc. Comparable data from January 1939 are available upon request to the Bureau of Labor Statistics.

<sup>2</sup> Preliminary.

TABLE C-4: Average Hourly Earnings, Gross and Exclusive of Overtime, of Production Workers in Manufacturing Industries<sup>1</sup>

Period	Manufacturing		Durable goods		Nondurable goods	
	Excluding overtime					
	Gross amount	Amount	Index (1939=100)	Gross	Excluding overtime	Gross
1941: Average.....	\$0.729	\$0.702	110.9	\$0.808	\$0.770	\$0.640
1942: Average.....	.853	.805	127.2	.947	.881	.723
1943: Average.....	.961	.894	141.2	1.059	.976	.803
1944: Average.....	1.019	.947	149.6	1.117	1.029	.861
1945: Average.....	1.023	1.063	152.1	1.111	1.042	.864
1946: Average.....	1.088	1.051	166.0	1.126	1.122	1.015
1947: Average.....	1.237	1.198	189.3	1.292	1.250	1.171
1948: Average.....	1.350	1.310	207.0	1.410	1.366	1.278
1949: Average.....	1.401	1.367	216.0	1.468	1.434	1.325
1950: Average.....	1.465	1.415	223.6	1.537	1.480	1.378
1950: April.....	1.434	1.392	219.9	1.499	1.449	1.355

Period	Manufacturing		Durable goods		Nondurable goods	
	Excluding overtime					
	Gross amount	Amount	Index (1939=100)	Gross	Excluding overtime	Gross
1950: May.....	\$1.442	\$1.399	221.0	\$1.569	\$1.459	\$1.358
June.....	1.453	1.404	221.8	1.522	1.465	1.365
July.....	1.462	1.413	223.2	1.533	1.478	1.375
August.....	1.454	1.408	222.4	1.539	1.475	1.374
September.....	1.479	1.424	225.0	1.562	1.496	1.379
October.....	1.501	1.442	227.8	1.577	1.508	1.404
November.....	1.514	1.456	230.0	1.587	1.521	1.419
December.....	1.543	1.479	233.6	1.619	1.545	1.443
1951: January.....	1.555	1.497	236.5	1.630	1.555	1.456
February.....	1.561	1.504	237.6	1.639	1.573	1.458
March.....	1.571	1.511	238.7	1.653	1.583	1.460
April.....	1.579	1.519	240.0	1.661	1.589	1.466

<sup>1</sup> Overtime is defined as work in excess of 40 hours per week and paid for at time and one-half. The computation of average hourly earnings exclusive of overtime makes no allowance for special rates for work done on holidays. Comparable data from January 1941 are available upon request to the Bureau of Labor Statistics.

<sup>2</sup> Eleven-month average. August 1945 excluded because of VJ-holiday period.

<sup>3</sup> Preliminary.



## D: Prices and Cost of Living

TABLE D-1: Consumers' Price Index<sup>1</sup> for Moderate-Income Families in Large Cities, by Group of Commodities

[1935-39=100]

Year and month	All items <sup>2</sup>	Food	Apparel	Rent <sup>3</sup>	Fuel, electricity, and refrigeration <sup>4</sup>				Household furnishings	Miscellaneous <sup>5</sup>
					Total	Gas and electricity	Other fuels	Ice		
1913: Average	70.7	70.9	69.3	92.2	61.9	(7)	(7)	(7)	59.1	60.9
1914: Average	71.8	81.8	68.8	92.2	62.3	(7)	(7)	(7)	60.7	61.9
1915: Average	72.5	80.9	71.4	92.9	62.5	(7)	(7)	(7)	63.6	63.6
1916: Average	77.9	90.8	78.3	94.0	65.0	(7)	(7)	(7)	70.9	66.3
1917: Average	91.6	116.9	94.1	93.2	72.4	(7)	(7)	(7)	82.8	65.1
1918: Average	107.5	134.4	127.5	94.8	84.2	(7)	(7)	(7)	106.4	77.8
1919: Average	123.8	149.8	168.7	102.7	91.1	(7)	(7)	(7)	134.1	87.6
1920: Average	143.3	168.8	201.0	120.7	106.9	(7)	(7)	(7)	164.6	100.5
1921: Average	127.7	128.3	154.8	138.6	114.0	(7)	(7)	(7)	138.5	104.3
1922: Average	119.7	119.0	125.6	142.7	113.1	(7)	(7)	(7)	117.5	101.2
1923: Average	121.9	124.0	125.9	146.4	118.2	(7)	(7)	(7)	126.1	100.8
1924: Average	122.2	122.8	124.9	151.6	113.7	(7)	(7)	(7)	124.0	101.4
1925: Average	123.4	132.9	122.4	152.2	115.4	(7)	(7)	(7)	121.5	102.2
1926: Average	126.4	137.4	120.6	150.7	117.2	(7)	(7)	(7)	118.8	102.6
1927: Average	124.0	132.3	118.3	148.3	115.4	(7)	(7)	(7)	115.9	103.2
1928: Average	122.6	130.8	116.5	144.8	113.4	(7)	(7)	(7)	113.1	103.8
1929: Average	122.5	132.5	115.3	141.4	112.5	(7)	(7)	(7)	111.7	104.6
1930: Average	119.4	126.0	112.7	137.5	111.4	(7)	(7)	(7)	108.9	105.1
1931: Average	108.7	103.9	102.6	130.3	103.9	(7)	(7)	(7)	98.0	104.1
1932: Average	97.6	86.5	90.8	116.9	103.4	(7)	(7)	(7)	83.4	101.7
1933: Average	92.4	84.1	87.9	100.7	100.0	(7)	(7)	(7)	84.2	98.4
1934: Average	95.7	93.7	96.1	94.4	101.4	(7)	(7)	(7)	92.8	97.9
1935: Average	98.1	100.0	96.8	94.2	102.8	98.4	100.0	94.8	94.8	98.9
1936: Average	98.1	101.3	97.6	96.4	100.2	100.5	98.8	100.0	96.3	97.7
1937: Average	102.7	105.3	102.8	100.9	100.2	99.1	101.7	100.0	104.3	101.0
1938: Average	100.8	97.8	102.2	104.1	99.9	99.0	101.0	100.0	103.3	101.5
1939: Average	98.4	95.2	100.5	104.3	98.0	98.9	99.1	100.2	101.3	101.7
1940: Average	100.2	96.6	101.7	104.6	98.7	98.0	101.9	100.4	100.5	101.1
1941: Average	105.2	105.5	106.3	106.4	102.2	97.1	108.3	104.1	107.3	104.0
1942: Average	118.6	123.9	124.2	108.8	105.4	96.7	118.1	110.0	122.2	110.9
1943: Average	123.7	138.0	129.7	108.7	107.7	96.1	120.7	114.2	125.6	118.8
1944: Average	125.7	136.1	138.8	109.1	108.8	95.8	126.0	115.8	136.4	121.3
1945: Average	128.6	130.1	145.9	109.5	110.3	95.0	128.3	113.9	145.8	124.1
1946: Average	139.5	156.6	160.2	110.1	112.4	92.3	136.9	115.9	159.2	128.8
1947: Average	159.0	193.8	185.8	113.6	121.1	92.0	156.1	125.9	184.4	139.9
1948: Average	171.9	210.3	198.0	121.2	138.8	94.3	183.4	135.2	195.8	149.9
1949: Average	170.2	201.9	198.1	126.4	137.5	95.7	187.7	141.7	190.0	154.6
1950: Average	171.9	204.5	187.7	131.0	140.6	96.8	194.1	147.8	194.2	156.5
January 15	168.2	196.0	185.0	129.4	140.0	96.7	193.1	145.5	180.7	155.1
May 15	169.3	199.8	184.7	130.6	138.8	96.9	187.6	146.8	185.0	155.1
June 15	170.2	203.1	194.6	130.9	139.1	96.8	189.0	147.0	184.8	154.6
July 15	172.0	208.2	184.8	131.3	139.4	96.9	189.9	147.6	186.1	155.2
August 15	173.4	209.9	185.7	131.6	140.2	96.8	192.9	147.6	189.1	156.8
September 15	174.6	210.0	186.8	131.8	141.2	96.8	196.1	148.1	194.2	157.8
October 15	175.6	210.6	193.0	132.0	142.0	96.8	199.2	149.9	198.7	158.3
November 15	176.4	210.5	194.3	132.5	142.5	96.8	200.8	151.3	201.1	159.2
December 15	178.8	216.3	195.5	132.9	142.8	96.8	201.7	151.5	203.2	160.6
1951: January 15	181.5	221.9	198.5	133.2	143.3	97.2	202.3	152.0	207.4	162.1
January 15	181.6	221.8	199.7	135.0	144.6	97.2	201.8	152.9	208.9	163.7
February 15	183.8	226.0	202.0	134.0	145.9	97.2	204.5	152.8	209.7	165.2
February 15	184.8	226.2	203.1	134.7	146.2	97.2	205.0	154.4	211.4	164.8
March 15	184.6	226.4	203.4	135.1	146.5	97.2	205.7	154.4	211.7	165.8
April 15	184.6	227.7	203.6	135.1	146.5	97.2	205.0	154.4	211.8	166.8
April 15	184.6	227.7	203.6	135.1	146.5	97.2	205.0	154.4	211.8	166.8
May 15	185.4	227.4	204.0	135.4	146.6	97.3	205.4	156.0	212.6	165.0
May 15	185.4	227.7	203.7	135.0	146.9	97.4	201.6	156.0	214.8	168.4

<sup>1</sup> The "Consumers' price index for moderate-income families in large cities" formerly known as the "Cost-of-living index" measures average changes in retail prices of selected goods, rents, and services purchased by wage earners and lower-salaried workers in large cities. Until January 1960, time-to-time changes in retail prices were weighted by 1934-36 average expenditures of urban families. Weights used beginning January 1960 have been adjusted to current spending patterns.

Bureau of Labor Statistics Bulletin 699, Changes in Cost of Living in Large Cities in the United States, 1913-41, contains a detailed description of methods used in constructing this index. Additional information on the Consumers' Price Index is given in a compilation of reports published by the Office of Economic Stabilization, Report of the President's Committee on the Cost of Living. See also General Note, below.

Micrographed tables are available upon request showing indexes for each of the cities regularly surveyed by the Bureau and for each of the major groups of living essentials. Indexes for all large cities combined are available since 1913. The beginning date for series of indexes for individual cities varies from city to city but indexes are available for most of the 34 cities since World War I.

NOTE.—The old series of Indexes for 1951 are shown in italics in tables D-1, D-2, and D-5 for reference.

<sup>2</sup> The Consumers' Price Index has been adjusted to incorporate a correction of the new unit bias in the rent index beginning with indexes for 1940 and adjusted population and commodity weights beginning with indexes for January 1960. These adjustments make a continuous comparable series from 1913 to date.

<sup>3</sup> The group index formerly entitled "Fuel, electricity, and ice" is now designated "Fuel, electricity, and refrigeration." Indexes are comparable with those previously published for "Fuel, electricity, and ice." The subgroup "Other fuels and ice" has been discontinued; separate indexes are presented for "Other fuels" and "Ice."

<sup>4</sup> The Miscellaneous group covers transportation (such as automobiles and their upkeep and public transportation fares); medical care (including professional care and medicines); household operation (covering supplies and different kinds of paid services); recreation (that is, newspapers, motion pictures, radio, television, and tobacco products); personal care (barber, and beauty-shop service and toilet articles); etc.

<sup>5</sup> Data not available.



TABLE D-2: Consumers' Price Index for Moderate-Income Families, by City,<sup>1</sup> for Selected Periods

[1935-39=100]

City	May 15, 1951	Apr. 15, 1951	Mar. 15, 1951	Feb. 15, 1951	Jan. 15, 1951	Dec. 15, 1950	Nov. 15, 1950	Oct. 15, 1950	Sept. 15, 1950	Aug. 15, 1950	July 15, 1950	June 15, 1950	May 15, 1950	Jan. 15, 1950	May 15, 1951
Average.....	185.4	184.6	184.5	183.8	181.5	178.8	176.4	173.6	174.6	173.4	172.0	170.2	169.3	168.2	185.4
Atlanta, Ga.....	192.7	( <sup>2</sup> )	( <sup>2</sup> )	187.5	( <sup>2</sup> )	( <sup>2</sup> )	* 180.7	( <sup>2</sup> )	( <sup>2</sup> )	* 177.9	( <sup>2</sup> )	( <sup>2</sup> )	171.7	( <sup>2</sup> )	191.4
Baltimore, Md.....	( <sup>2</sup> )	( <sup>2</sup> )	186.6	( <sup>2</sup> )	( <sup>2</sup> )	183.1	( <sup>2</sup> )	180.6	( <sup>2</sup> )	( <sup>2</sup> )	174.7	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Birmingham, Ala.....	190.1	189.9	190.6	189.8	188.2	183.9	180.8	179.2	179.7	176.8	175.4	171.6	170.5	169.0	190.0
Boston, Mass.....	176.1	175.5	175.8	175.5	173.5	171.2	168.7	169.5	168.2	168.1	167.1	165.5	163.6	162.4	177.0
Buffalo, N. Y.....	( <sup>2</sup> )	183.3	( <sup>2</sup> )	( <sup>2</sup> )	180.8	( <sup>2</sup> )	( <sup>2</sup> )	174.1	( <sup>2</sup> )	( <sup>2</sup> )	171.5	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Chicago, Ill.....	189.8	189.1	189.1	188.5	185.4	183.4	180.6	180.3	179.8	179.0	177.3	175.1	174.8	172.8	180.8
Cincinnati, Ohio.....	184.8	184.6	184.4	183.9	182.3	178.4	175.1	175.9	173.9	172.9	172.0	170.5	169.7	168.5	185.2
Cleveland, Ohio.....	188.2	( <sup>2</sup> )	( <sup>2</sup> )	186.2	( <sup>2</sup> )	( <sup>2</sup> )	179.6	( <sup>2</sup> )	( <sup>2</sup> )	176.5	( <sup>2</sup> )	( <sup>2</sup> )	171.1	( <sup>2</sup> )	188.0
Denver, Colo.....	( <sup>2</sup> )	187.0	( <sup>2</sup> )	( <sup>2</sup> )	184.9	( <sup>2</sup> )	( <sup>2</sup> )	178.1	( <sup>2</sup> )	( <sup>2</sup> )	172.6	( <sup>2</sup> )	( <sup>2</sup> )	168.8	( <sup>2</sup> )
Detroit, Mich.....	187.4	186.7	187.0	186.2	184.2	181.3	179.8	179.1	177.5	175.9	175.0	173.5	172.1	169.7	187.9
Houston, Tex.....	192.0	192.5	192.4	191.0	190.1	186.1	183.0	182.3	182.2	180.6	177.5	175.8	175.3	173.5	191.7
Indianapolis, Ind.....	( <sup>2</sup> )	187.7	( <sup>2</sup> )	( <sup>2</sup> )	184.4	( <sup>2</sup> )	( <sup>2</sup> )	178.9	( <sup>2</sup> )	( <sup>2</sup> )	174.4	( <sup>2</sup> )	( <sup>2</sup> )	171.2	( <sup>2</sup> )
Jacksonville, Fla.....	( <sup>2</sup> )	( <sup>2</sup> )	190.4	( <sup>2</sup> )	( <sup>2</sup> )	185.6	( <sup>2</sup> )	( <sup>2</sup> )	181.7	( <sup>2</sup> )	( <sup>2</sup> )	176.3	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Kansas City, Mo.....	( <sup>2</sup> )	178.5	( <sup>2</sup> )	( <sup>2</sup> )	178.6	( <sup>2</sup> )	( <sup>2</sup> )	168.0	( <sup>2</sup> )	( <sup>2</sup> )	166.9	( <sup>2</sup> )	( <sup>2</sup> )	162.5	( <sup>2</sup> )
Los Angeles, Calif.....	196.3	195.6	195.6	194.1	191.3	178.5	175.2	174.8	173.2	172.1	170.1	169.3	169.5	169.4	184.1
Manchester, N. H.....	( <sup>2</sup> )	182.9	( <sup>2</sup> )	( <sup>2</sup> )	180.6	( <sup>2</sup> )	( <sup>2</sup> )	176.6	( <sup>2</sup> )	( <sup>2</sup> )	172.1	( <sup>2</sup> )	( <sup>2</sup> )	168.0	( <sup>2</sup> )
Memphis, Tenn.....	( <sup>2</sup> )	( <sup>2</sup> )	186.5	( <sup>2</sup> )	( <sup>2</sup> )	182.7	( <sup>2</sup> )	( <sup>2</sup> )	179.2	( <sup>2</sup> )	( <sup>2</sup> )	172.7	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Milwaukee, Wis.....	190.9	( <sup>2</sup> )	( <sup>2</sup> )	187.5	( <sup>2</sup> )	( <sup>2</sup> )	180.3	( <sup>2</sup> )	( <sup>2</sup> )	176.6	( <sup>2</sup> )	( <sup>2</sup> )	172.0	( <sup>2</sup> )	189.6
Minneapolis, Minn.....	( <sup>2</sup> )	( <sup>2</sup> )	183.2	( <sup>2</sup> )	( <sup>2</sup> )	177.7	( <sup>2</sup> )	( <sup>2</sup> )	172.8	( <sup>2</sup> )	( <sup>2</sup> )	169.1	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Mobile, Ala.....	( <sup>2</sup> )	( <sup>2</sup> )	181.9	( <sup>2</sup> )	( <sup>2</sup> )	177.1	( <sup>2</sup> )	( <sup>2</sup> )	173.9	( <sup>2</sup> )	( <sup>2</sup> )	168.2	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
New Orleans, La.....	188.5	( <sup>2</sup> )	( <sup>2</sup> )	187.9	( <sup>2</sup> )	( <sup>2</sup> )	180.1	( <sup>2</sup> )	( <sup>2</sup> )	179.6	( <sup>2</sup> )	( <sup>2</sup> )	174.4	( <sup>2</sup> )	188.9
New York, N. Y.....	181.4	180.6	180.4	180.8	177.8	175.4	173.2	172.4	171.7	169.7	169.8	167.0	166.1	164.8	181.0
Norfolk, Va.....	188.3	( <sup>2</sup> )	( <sup>2</sup> )	187.1	( <sup>2</sup> )	( <sup>2</sup> )	179.3	( <sup>2</sup> )	( <sup>2</sup> )	178.8	( <sup>2</sup> )	( <sup>2</sup> )	173.6	( <sup>2</sup> )	189.9
Philadelphia, Pa.....	186.4	185.0	185.6	185.4	181.0	178.1	174.1	173.8	173.1	171.8	170.4	169.1	167.4	166.4	186.2
Pittsburgh, Pa.....	187.8	186.7	186.0	185.6	183.4	180.2	178.7	178.8	177.4	176.0	172.9	171.6	171.0	170.0	188.6
Portland, Maine.....	( <sup>2</sup> )	( <sup>2</sup> )	175.7	( <sup>2</sup> )	( <sup>2</sup> )	171.3	( <sup>2</sup> )	( <sup>2</sup> )	168.1	( <sup>2</sup> )	( <sup>2</sup> )	164.4	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Portland, Ore.....	( <sup>2</sup> )	194.1	( <sup>2</sup> )	( <sup>2</sup> )	190.4	( <sup>2</sup> )	( <sup>2</sup> )	184.3	( <sup>2</sup> )	( <sup>2</sup> )	179.3	( <sup>2</sup> )	( <sup>2</sup> )	174.9	( <sup>2</sup> )
Richmond, Va.....	( <sup>2</sup> )	181.2	( <sup>2</sup> )	( <sup>2</sup> )	179.8	( <sup>2</sup> )	( <sup>2</sup> )	173.8	( <sup>2</sup> )	( <sup>2</sup> )	170.0	( <sup>2</sup> )	( <sup>2</sup> )	164.6	( <sup>2</sup> )
St. Louis, Mo.....	( <sup>2</sup> )	( <sup>2</sup> )	185.2	( <sup>2</sup> )	( <sup>2</sup> )	178.8	( <sup>2</sup> )	( <sup>2</sup> )	174.0	( <sup>2</sup> )	( <sup>2</sup> )	168.8	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
San Francisco, Calif.....	( <sup>2</sup> )	( <sup>2</sup> )	188.7	( <sup>2</sup> )	( <sup>2</sup> )	181.5	( <sup>2</sup> )	( <sup>2</sup> )	175.3	( <sup>2</sup> )	( <sup>2</sup> )	172.4	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Savannah, Ga.....	( <sup>2</sup> )	195.5	( <sup>2</sup> )	( <sup>2</sup> )	189.2	( <sup>2</sup> )	( <sup>2</sup> )	183.6	( <sup>2</sup> )	( <sup>2</sup> )	177.7	( <sup>2</sup> )	( <sup>2</sup> )	172.3	( <sup>2</sup> )
Scranton, Pa.....	182.4	( <sup>2</sup> )	( <sup>2</sup> )	180.8	( <sup>2</sup> )	( <sup>2</sup> )	173.1	( <sup>2</sup> )	( <sup>2</sup> )	171.2	( <sup>2</sup> )	( <sup>2</sup> )	166.6	( <sup>2</sup> )	184.7
Seattle, Wash.....	191.4	( <sup>2</sup> )	( <sup>2</sup> )	188.3	( <sup>2</sup> )	( <sup>2</sup> )	183.1	( <sup>2</sup> )	( <sup>2</sup> )	177.3	( <sup>2</sup> )	( <sup>2</sup> )	174.4	( <sup>2</sup> )	189.6
Washington, D. C.....	180.0	( <sup>2</sup> )	( <sup>2</sup> )	179.2	( <sup>2</sup> )	( <sup>2</sup> )	173.5	( <sup>2</sup> )	( <sup>2</sup> )	170.8	( <sup>2</sup> )	( <sup>2</sup> )	166.8	( <sup>2</sup> )	180.2

<sup>1</sup> The indexes are based on time-to-time changes in the cost of goods and services purchased by moderate-income families in large cities. They do not indicate whether it costs more to live in one city than in another.

<sup>2</sup> See footnote 2, table D-1, p. 763.

<sup>3</sup> Through June 1947, consumers' price indexes were computed monthly for 21 cities and in March, June, September, and December for 13 additional cities; beginning July 1947 indexes were computed monthly for 10 cities and once every 3 months for 24 additional cities according to a staggered schedule.

\*Corrected.



TABLE D-3: Consumers' Price Index for Moderate-Income Families, by City and Group of Commodities<sup>1</sup>

[1935-39=100]

City	Food		Apparel		Rent		Fuel, electricity, and refrigeration				Housefurnishings		Miscellaneous	
							Total		Gas and electricity					
	May 15, 1951	Apr. 15, 1951	May 15, 1951	Apr. 15, 1951	May 15, 1951	Apr. 15, 1951	May 15, 1951	Apr. 15, 1951	May 15, 1951	Apr. 15, 1951	May 15, 1951	Apr. 15, 1951	May 15, 1951	Apr. 15, 1951
Average.....	227.4	225.7	204.0	203.6	135.4	135.1	143.6	144.0	97.3	96.9	212.6	211.8	165.0	164.6
Atlanta, Ga.....	228.7	228.5	216.3	(1)	147.1	(2)	159.4	155.5	85.9	83.4	220.9	(1)	174.9	(1)
Baltimore, Md.....	239.0	236.2	(1)	(1)	(2)	(2)	147.8	148.8	115.2	115.2	(1)	(1)	(1)	(1)
Birmingham, Ala.....	218.1	218.3	215.3	215.1	191.1	(2)	135.6	137.9	79.6	79.6	200.1	200.2	160.7	160.2
Boston, Mass.....	214.4	212.8	187.4	186.4	(2)	(2)	160.1	161.1	117.2	117.2	201.8	201.8	159.0	158.6
Buffalo, N. Y.....	221.9	218.0	(1)	200.1	(2)	137.2	153.2	155.5	110.0	110.0	(1)	211.3	(1)	168.5
Chicago, Ill.....	233.0	231.1	205.8	206.0	(2)	(2)	137.8	138.4	83.5	83.5	198.8	198.7	166.4	166.3
Cincinnati, Ohio.....	227.1	226.0	204.8	204.6	(2)	(2)	147.4	151.1	101.7	101.7	200.8	200.8	164.4	164.2
Cleveland, Ohio.....	235.6	231.8	204.9	(1)	144.0	(2)	149.0	150.0	105.6	105.6	192.3	(1)	160.8	(1)
Denver, Colo.....	232.3	229.9	(1)	203.1	(2)	161.2	113.8	113.8	69.7	69.7	(1)	245.3	(1)	158.9
Detroit, Mich.....	229.1	227.5	196.0	196.0	(2)	138.2	154.7	154.8	90.1	90.3	221.8	228.6	174.7	174.7
Houston, Tex.....	235.3	238.3	221.8	220.5	168.4	(2)	98.6	98.6	82.1	82.1	206.3	206.3	167.3	167.3
Indianapolis, Ind.....	223.3	221.6	(1)	198.7	(2)	142.1	161.0	162.0	84.5	84.5	(1)	198.2	(1)	173.3
Jacksonville, Fla.....	230.5	234.3	(1)	(1)	(2)	(2)	143.8	143.4	85.8	85.3	(1)	(1)	(1)	(1)
Kansas City, Mo.....	213.6	212.4	(1)	198.9	(2)	144.0	131.4	130.1	69.9	69.1	(1)	197.2	(1)	165.7
Los Angeles, Calif.....	230.9	228.9	202.0	201.1	161.4	(2)	98.7	98.7	93.0	93.0	204.8	203.8	161.0	161.7
Manchester, N. H.....	218.4	217.8	(1)	193.4	(2)	128.1	162.2	162.2	102.5	101.6	(1)	214.6	(1)	156.7
Memphis, Tenn.....	234.6	232.9	(1)	(1)	(2)	(2)	141.4	141.4	77.0	77.0	(1)	(1)	(1)	(1)
Milwaukee, Wis.....	227.5	224.8	204.3	(1)	162.2	(2)	149.3	150.8	99.2	99.2	216.5	(1)	163.7	(1)
Minneapolis, Minn.....	220.3	217.6	(1)	(1)	(2)	(2)	136.7	136.7	72.7	72.7	(1)	(1)	(1)	(1)
Mobile, Ala.....	224.2	225.7	(1)	(1)	(2)	(2)	130.2	130.4	84.6	84.8	(1)	(1)	(1)	(1)
New Orleans, La.....	239.5	240.2	210.7	(1)	136.9	(2)	113.2	113.2	75.1	75.1	206.3	(1)	151.6	(1)
New York, N. Y.....	229.4	224.9	203.4	201.8	(2)	115.0	143.9	142.9	103.0	101.8	203.8	201.6	167.8	167.6
Norfolk, Va.....	229.4	227.9	192.8	(1)	148.9	(2)	164.6	164.6	107.3	107.3	204.4	(1)	164.4	(1)
Philadelphia, Pa.....	223.8	222.3	202.5	201.7	126.5	(2)	148.1	149.7	104.2	104.2	221.3	220.7	168.9	169.3
Pittsburgh, Pa.....	230.5	227.8	234.9	234.6	(2)	125.4	150.2	150.3	114.1	114.2	216.6	216.6	161.7	161.0
Portland, Maine.....	210.0	209.6	(1)	(1)	(2)	(2)	154.8	155.8	105.6	105.7	(1)	(1)	(1)	(1)
Portland, Oreg.....	252.1	248.6	(1)	199.6	(2)	150.9	134.3	134.9	93.9	93.9	(1)	207.8	(1)	169.1
Richmond, Va.....	216.7	215.9	(1)	202.0	(2)	150.8	145.9	148.3	102.2	102.2	(1)	226.6	(1)	153.1
St. Louis, Mo.....	238.4	237.6	(1)	(1)	(2)	(2)	141.3	143.1	88.4	88.4	(1)	(1)	(1)	(1)
San Francisco, Calif.....	241.2	238.4	(1)	(1)	(2)	(2)	92.0	92.0	81.0	81.0	(1)	(1)	(1)	(1)
Savannah, Ga.....	237.6	237.6	(1)	205.2	(2)	161.6	162.3	160.6	111.8	108.6	(1)	218.2	(1)	170.9
Seranton, Pa.....	225.2	221.4	210.4	(1)	119.9	(2)	154.9	154.9	98.3	98.3	190.8	(1)	153.1	(1)
Seattle, Wash.....	236.6	234.4	202.2	(1)	152.7	(2)	152.1	152.1	92.6	92.6	217.1	(1)	171.0	(1)
Washington, D. C.....	224.3	222.2	224.6	(1)	118.7	(2)	148.1	146.7	105.3	102.3	221.0	(1)	165.1	(1)

<sup>1</sup> Prices of apparel, housefurnishings, and miscellaneous goods and services are obtained monthly in 10 cities and once every 3 months in 24 additional cities on a staggered schedule.

<sup>2</sup> Rents are surveyed every 3 months in 34 large cities on a staggered schedule.

<sup>3</sup> Corrected.



TABLE D-4: Indexes of Retail Prices of Foods,<sup>1</sup> by Group, for Selected Periods

[1935-39=100]

Year and month	All foods	Cereals and bakery products	Meats, poultry, and fish	Meats				Chicken	Fish	Dairy products	Eggs	Fruits and vegetables					Beverages	Fats and oils	Sugar and sweets	
				Total	Beef and veal	Pork	Lamb					Total	Frozen	Fresh	Canned	Dried				
1923: Average	124.0	105.5	101.2	-----	-----	-----	-----	-----	-----	129.4	136.1	169.5	-----	173.6	124.8	175.4	131.5	126.2	175.4	
1926: Average	137.4	115.7	117.8	-----	-----	-----	-----	-----	-----	127.4	141.7	210.8	-----	226.2	122.9	152.4	170.4	145.0	120.0	
1929: Average	132.6	107.6	127.1	-----	-----	-----	-----	-----	-----	131.0	143.8	180.0	-----	173.5	124.3	177.0	164.8	127.2	114.3	
1932: Average	86.5	82.6	79.3	-----	-----	-----	-----	-----	-----	84.9	82.3	103.5	-----	105.9	91.1	91.2	112.6	71.1	86.6	
1939: Average	95.2	94.5	96.6	96.6	101.1	88.9	96.5	93.8	101.0	95.9	91.0	94.5	-----	95.1	92.3	93.3	95.8	87.7	106.6	
August	93.5	93.4	95.7	95.4	96.6	88.0	96.8	94.6	99.6	93.1	90.7	92.4	-----	92.8	91.6	90.3	94.9	84.5	95.0	
1940: Average	96.6	95.8	95.8	94.4	102.8	81.1	99.7	94.8	110.6	101.4	93.8	95.5	-----	97.3	92.4	100.6	92.5	82.2	96.8	
1941: Average	105.5	97.9	107.5	108.5	110.8	100.1	106.6	102.1	124.5	112.0	112.2	102.2	-----	104.2	97.9	106.7	101.5	94.0	106.4	
December	113.1	102.8	111.1	109.7	114.4	103.2	108.1	100.8	138.9	120.5	138.1	110.5	-----	111.0	106.3	118.3	114.1	108.5	114.4	
1942: Average	123.9	105.1	128.0	122.5	123.6	120.4	124.1	122.6	153.0	128.4	136.5	130.8	-----	132.8	121.6	156.3	122.1	119.6	126.5	
1943: Average	138.0	107.6	133.8	124.2	124.7	119.9	136.9	144.1	206.5	134.6	161.9	158.8	-----	178.0	130.6	158.9	124.8	126.1	127.1	
1944: Average	136.1	108.4	129.9	117.9	118.7	112.2	134.5	151.0	207.6	133.6	153.9	166.2	-----	177.2	129.5	164.5	124.3	123.3	126.5	
1945: Average	139.1	109.0	131.2	118.0	118.4	112.6	136.0	154.4	217.1	133.9	164.4	177.1	-----	188.2	130.2	168.2	124.7	124.0	126.5	
August	140.9	109.1	131.8	118.1	118.8	112.6	136.4	157.3	217.8	133.4	171.4	183.5	-----	196.2	130.3	168.6	124.7	124.0	126.6	
1946: Average	150.6	125.0	161.3	150.8	150.5	148.2	153.9	174.0	236.2	165.1	168.8	182.4	-----	190.7	140.8	190.4	139.6	152.1	143.9	
June	145.6	122.1	154.0	120.4	121.2	114.3	130.0	162.8	219.7	147.8	147.1	183.5	-----	196.7	127.5	172.5	125.4	126.4	136.2	
November	187.7	140.6	203.6	197.9	191.0	207.1	205.4	188.9	265.0	198.5	201.6	184.5	-----	182.3	167.7	251.6	167.8	244.4	170.5	
1947: Average	193.8	155.4	217.1	214.7	213.6	215.9	220.1	183.2	271.4	186.2	200.8	199.4	-----	201.5	168.2	263.5	186.8	197.5	180.0	
1948: Average	210.2	170.9	246.5	243.9	238.5	222.5	246.8	203.2	312.8	204.8	208.7	203.2	-----	212.4	158.0	246.8	205.0	195.5	174.0	
1949: Average	201.9	169.7	233.4	229.3	241.3	205.9	251.7	191.8	314.1	186.7	201.2	208.1	-----	218.8	152.9	227.4	220.7	148.4	176.4	
1950: Average	204.5	172.7	243.6	242.0	265.7	203.2	257.8	183.3	308.5	184.7	173.6	199.2	-----	208.1	146.0	228.8	312.5	144.3	179.0	
January	196.0	169.0	219.4	217.9	242.3	177.3	224.3	158.9	301.9	184.2	152.3	204.8	-----	217.2	145.3	223.9	299.5	135.2	178.9	
May	199.8	169.8	240.2	238.4	258.7	202.8	262.1	184.4	293.7	178.3	143.7	202.2	-----	213.6	142.0	222.9	299.1	137.7	174.4	
June	203.1	169.8	246.5	246.7	258.6	201.9	268.1	183.1	295.9	177.8	148.4	209.3	-----	224.3	142.7	222.9	296.5	140.1	174.3	
July	208.2	171.5	255.7	257.4	277.2	225.9	296.0	186.8	297.3	180.7	163.3	211.5	-----	227.7	142.7	222.9	303.0	141.8	173.7	
August	209.9	175.5	260.7	258.6	282.2	225.0	268.9	202.3	302.8	184.3	182.2	193.4	-----	196.9	145.7	227.6	321.3	133.9	185.6	
September	210.0	176.9	261.0	260.2	281.7	228.3	264.2	192.2	311.4	186.9	192.1	186.0	-----	183.9	147.6	229.8	327.3	134.8	185.4	
October	210.6	177.2	263.3	262.0	279.6	209.3	259.4	187.2	298.8	191.9	206.2	180.8	-----	187.7	151.6	236.1	333.4	152.9	184.8	
November	210.8	177.6	260.3	249.6	279.2	201.8	264.1	180.1	316.6	192.8	205.4	195.7	-----	195.9	153.2	242.2	325.5	152.9	184.6	
December	216.3	177.7	253.4	253.8	286.3	201.0	269.0	179.3	340.3	194.0	249.4	203.9	190.0	-----	207.3	158.3	248.8	327.7	158.5	184.9
1951: January	221.9	185.4	293.6	265.5	300.9	210.2	273.6	184.3	345.3	202.6	191.5	214.1	100.2	220.0	160.6	253.4	340.6	171.5	183.6	
February	226.0	187.1	270.1	271.2	307.0	215.2	279.7	193.2	347.8	204.4	179.8	224.3	100.8	233.4	165.1	256.7	342.7	176.5	186.0	
March	226.2	187.5	272.2	271.9	308.0	215.4	280.5	198.6	351.2	204.6	183.2	217.1	101.2	220.7	167.0	257.4	342.6	177.3	186.0	
April	223.7	188.3	272.6	272.5	309.5	213.7	284.2	198.5	351.7	204.1	191.2	214.5	100.2	218.9	168.9	257.8	343.5	176.3	185.9	
May	225.4	188.2	272.7	272.4	308.7	213.4	289.1	198.9	353.1	203.5	198.4	221.6	90.6	220.5	169.6	256.7	345.3	176.7	185.4	

<sup>1</sup> The Bureau of Labor Statistics retail food prices are obtained monthly during the first three days of the week containing the fifteenth of the month, through voluntary reports from chain and independent retail food dealers. Articles included are selected to represent food sales to moderate-income families.

The indexes, based on retail prices of 50 foods through 1949 and 59 foods from January 1950 to date are computed by the fixed-base-weighted-aggregate method, using weights representing (1) relative importance of chain and independent store sales, in computing city average prices; (2) food purchases by families of wage earners and moderate-income workers, in computing

city indexes; and (3) population weights, in combining city aggregates in order to derive average prices and indexes for all cities combined.

Indexes of retail food prices in 56 large cities combined, by commodity groups, for the years 1923 through 1948 (1935-39=100), may be found in Bulletin No. 965, "Retail Prices of Food, 1948," Bureau of Labor Statistics, U. S. Department of Labor, table 3, p. 7. Micrographed tables of the same data, by months, January 1933 to date, are available upon request.

<sup>2</sup> December 1950=100

<sup>3</sup> Corrected.



TABLE D-5: Indexes of Retail Prices of Foods, by City

[1935-39=100]

City	May 1951	Apr. 1951	Mar. 1951	Feb. 1951	Jan. 1951	Dec. 1950	Nov. 1950	Oct. 1950	Sept. 1950	Aug. 1950	July 1950	June 1950	May 1950	Jan. 1950	May 1951
United States.....	227.4	225.7	226.2	226.0	221.9	216.3	210.8	210.8	210.0	209.9	208.2	203.1	199.8	196.0	226.7
Atlanta, Ga.....	228.7	228.5	224.1	224.0	223.4	217.0	208.3	208.6	210.2	210.1	202.0	195.4	193.8	192.5	230.9
Baltimore, Md.....	229.0	230.2	226.8	227.1	221.8	226.4	220.5	221.2	221.8	222.0	220.4	215.6	210.8	198.4	238.9
Birmingham, Ala.....	218.1	218.3	220.5	220.8	219.8	212.3	203.0	202.7	206.4	201.5	199.8	192.2	191.8	186.4	217.8
Boston, Mass.....	214.4	212.8	213.3	213.8	209.1	204.1	201.5	201.9	200.1	202.9	202.0	196.1	190.6	186.6	214.9
Bridgeport, Conn.....	225.3	226.0	226.9	224.1	220.9	214.6	209.1	210.8	206.8	208.4	210.0	204.0	199.8	195.5	225.2
Buffalo, N. Y.....	221.9	218.0	219.6	217.9	215.8	207.5	205.7	204.0	202.6	203.5	204.9	199.0	193.9	189.8	222.8
Butte, Mont.....	226.6	222.9	223.9	222.5	220.7	215.8	212.2	212.0	209.4	209.1	204.9	203.0	198.5	194.1	229.0
Cedar Rapids, Iowa.....	226.5	234.8	224.9	220.6	220.2	225.9	220.2	220.6	219.2	218.8	211.9	203.6	205.5	200.3	240.0
Charleston, S. C.....	211.0	212.2	214.3	213.2	208.9	203.2	195.5	196.7	198.9	199.9	192.8	188.0	186.1	185.3	211.4
Chicago, Ill.....	233.0	231.1	231.6	232.9	225.1	221.6	214.8	215.0	214.7	217.0	214.8	208.4	206.0	199.9	234.4
Cincinnati, Ohio.....	227.1	226.0	225.8	226.9	223.7	215.9	210.7	212.6	214.2	213.2	210.2	205.1	202.0	197.4	226.1
Cleveland, Ohio.....	235.6	231.8	233.3	232.7	227.4	220.9	217.8	219.1	217.5	218.3	216.6	211.2	205.7	202.6	234.9
Columbus, Ohio.....	227.3	226.1	227.1	226.7	220.7	197.4	191.1	192.5	193.2	194.0	189.9	183.9	182.1	177.2	220.1
Dallas, Tex.....	228.9	228.7	229.9	228.7	225.9	221.1	213.1	213.8	215.6	214.2	207.2	201.5	199.8	198.4	228.4
Denver, Colo.....	232.3	229.9	230.5	229.0	227.8	223.6	216.0	215.1	212.2	214.8	209.6	205.9	203.0	196.8	230.6
Detroit, Mich.....	229.1	227.3	228.8	228.3	223.7	217.2	213.5	212.5	209.7	208.8	208.0	202.9	198.7	191.8	227.9
Fall River, Mass.....	218.2	219.8	219.2	218.0	216.0	211.4	204.2	207.6	205.6	207.7	207.2	200.7	198.6	191.9	220.7
Houston, Tex.....	233.3	238.3	238.5	235.6	236.0	227.5	222.1	222.3	223.3	221.9	212.8	208.1	206.3	207.7	238.8
Indianapolis, Ind.....	221.6	221.6	222.1	221.6	218.6	214.9	208.8	208.6	210.3	208.8	203.4	198.1	196.1	192.3	224.6
Jackson, Miss.....	223.2	222.1	226.3	226.4	223.1	216.0	211.6	213.9	213.9	213.2	206.0	201.0	201.2	199.9	222.5
Jacksonville, Fla.....	229.5	234.3	229.3	231.5	229.0	223.1	215.3	214.2	219.1	218.1	211.4	205.8	202.8	200.7	230.1
Kansas City, Mo.....	213.6	212.0	211.6	210.5	208.5	203.2	198.1	196.2	195.8	194.9	195.0	189.2	187.2	183.6	215.8
Knoxville, Tenn.....	230.3	230.9	233.4	232.1	248.6	243.6	235.0	234.8	238.5	238.5	227.9	223.1	220.6	216.7	230.0
Little Rock, Ark.....	225.1	224.9	226.8	225.2	222.7	217.1	211.7	210.9	211.5	210.7	204.2	200.1	196.4	196.4	225.8
Los Angeles, Calif.....	230.9	228.9	229.8	226.9	226.3	218.0	212.1	210.9	207.8	208.6	204.4	201.6	201.3	201.4	225.8
Louisville, Ky.....	213.7	212.8	214.6	214.5	210.0	203.3	198.0	198.0	199.4	197.8	197.6	192.0	187.8	183.7	215.6
Manchester, N. H.....	218.4	217.8	217.6	218.9	215.1	210.1	207.4	208.8	206.2	207.3	206.3	200.6	196.2	191.0	218.8
Memphis, Tenn.....	234.6	232.9	233.8	230.8	227.6	224.0	218.3	220.1	221.5	219.4	213.6	208.3	205.8	203.1	235.0
Milwaukee, Wis.....	227.5	224.8	226.9	227.4	219.6	216.3	213.0	212.3	212.3	213.7	212.7	206.6	204.2	196.3	227.1
Minneapolis, Minn.....	220.3	217.6	217.7	217.9	213.8	206.8	202.1	206.7	199.1	200.7	196.8	194.1	191.3	189.1	217.4
Mobile, Ala.....	224.2	225.7	223.8	222.5	220.4	213.2	208.8	207.4	210.2	212.6	204.7	200.1	199.8	196.4	225.8
Newark, N. J.....	227.1	224.2	223.2	223.5	220.2	215.3	209.1	208.2	206.3	206.3	206.8	203.3	198.3	192.4	223.4
New Haven, Conn.....	229.3	218.1	219.3	220.0	214.0	208.7	203.6	203.4	203.6	203.8	204.5	199.8	194.9	190.6	219.9
New Orleans, La.....	229.5	240.2	242.1	239.8	237.8	228.2	220.7	221.8	225.2	227.0	218.5	212.9	210.6	209.6	238.0
New York, N. Y.....	226.4	224.9	224.7	227.0	221.0	216.1	211.3	210.2	210.6	207.2	209.2	203.7	200.3	195.9	224.5
Norfolk, Va.....	229.4	227.9	233.8	231.1	225.2	214.8	210.8	211.8	216.3	217.6	210.3	205.9	202.1	194.8	229.5
Omaha, Neb.....	219.3	217.0	216.8	216.4	213.7	209.8	203.6	202.3	203.5	203.9	199.6	197.2	195.5	189.8	220.8
Peoria, Ill.....	240.6	237.9	238.1	236.5	233.4	226.9	224.4	225.0	224.2	224.3	221.2	216.8	211.9	205.9	244.5
Philadelphia, Pa.....	223.8	222.3	221.4	222.2	217.7	212.9	206.7	207.9	208.8	208.1	205.9	201.4	198.5	191.3	227.9
Pittsburgh, Pa.....	230.5	227.8	227.2	227.4	222.4	218.0	213.8	215.9	214.6	213.3	211.1	207.5	205.1	199.7	228.8
Portland, Maine.....	210.0	209.6	210.5	211.0	207.9	202.9	198.1	198.9	197.7	198.0	198.9	195.0	189.2	187.3	210.8
Portland, Ore.....	252.1	248.6	250.3	247.4	243.4	234.9	229.7	228.7	228.5	227.5	219.6	216.6	210.4	204.8	260.8
Providence, R. I.....	229.1	229.5	228.6	230.8	225.1	219.3	213.7	214.4	213.6	214.4	213.5	207.9	203.0	198.3	232.1
Richmond, Va.....	216.7	215.9	217.4	218.3	214.6	210.3	201.6	202.0	202.9	202.9	200.7	195.2	191.1	188.3	217.8
Rochester, N. Y.....	229.9	217.8	218.2	216.2	212.2	206.1	202.6	204.5	202.0	201.7	203.4	196.4	193.7	190.7	220.0
St. Louis, Mo.....	228.4	227.6	229.4	240.0	234.0	229.7	221.2	220.2	220.4	220.8	220.1	210.2	207.2	204.6	229.9
St. Paul, Minn.....	215.1	214.4	214.1	212.9	210.5	202.8	198.4	196.9	193.3	195.7	194.4	192.5	189.7	186.4	215.1
Salt Lake City, Utah.....	228.3	228.9	227.9	225.6	222.2	217.2	212.4	211.4	210.9	210.1	202.8	202.2	199.2	198.7	228.4
San Francisco, Calif.....	241.2	238.4	241.7	235.3	238.0	229.0	219.3	217.0	214.3	217.3	215.9	211.1	210.4	214.3	245.4
Savannah, Ga.....	257.6	257.6	252.3	251.5	229.8	225.0	214.9	215.9	217.9	219.8	211.6	206.3	203.6	197.0	255.4
Seranton, Pa.....	225.2	221.4	222.7	223.7	217.7	212.1	207.1	207.2	208.9	209.8	209.5	204.2	199.6	192.4	225.1
Seattle, Wash.....	236.6	234.4	234.3	231.7	225.7	225.7	221.8	218.0	214.1	214.6	211.4	208.6	206.9	205.8	234.0
Springfield, Ill.....	237.6	237.6	237.8	238.2	233.7	231.7	223.1	222.1	218.6	219.8	218.6	211.8	207.5	200.9	239.0
Washington, D. C.....	224.3	222.2	222.4	223.3	221.2	216.7	208.9	208.9	207.0	207.4	205.8	201.9	194.9	194.4	224.0
Wichita, Kans.....	214.0	214.1	217.5	215.9	211.1	200.0	218.4	219.0	218.9	220.4	214.0	209.4	207.6	205.9	221.1
Winston-Salem, N. C.....	220.6	220.4	223.7	221.3	217.6	214.1	205.7	207.5	207.8	207.4	200.8	197.3	193.1	191.0	221.1

\* June 1940=100.

\*Corrected.



TABLE D-6: Average Retail Prices and Indexes of Selected Foods

Commodity	Average price May 1951	Indexes 1935-39=100													
		May 1951	Apr. 1951	Mar. 1951	Feb. 1951	Jan. 1951	Dec. 1950	Nov. 1950	Oct. 1950	Sept. 1950	Aug. 1950	July 1950	June 1950	May 1950	Jan. 1950
Cereals and bakery products:															
Cereals:															
Flour, wheat..... 5 pounds.....	52.2	202.4	201.8	200.9	199.0	196.3	192.5	191.9	192.4	192.9	192.6	190.6	190.3	190.2	187.3
Corn flakes..... 13 ounces.....	21.1	197.4	196.6	194.3	193.9	192.5	191.7	190.9	187.4	182.7	177.2	177.1	176.6	177.0	177.8
Corn meal..... 13 pounds.....	9.5	201.3	203.7	203.7	202.8	200.5	197.8	197.9	204.0	205.4	203.8	190.9	181.9	178.0	177.8
Rice..... 10 pounds.....	18.2	101.6	102.2	101.9	101.5	100.7	101.0	98.6	97.5	96.8	95.5	92.4	92.1	92.0	92.2
Roll oats..... 20 ounces.....	17.7	160.2	159.1	156.6	155.2	154.5	153.4	152.2	150.3	148.8	146.1	145.8	145.8	145.9	146.4
Bakery products:															
Bread, white..... pound.....	15.6	182.8	182.7	182.8	183.0	182.2	172.0	171.9	171.9	171.5	171.1	166.2	163.9	164.1	162.8
Vanilla cookies..... do.....	49.9	213.2	214.9	213.7	211.6	209.8	201.8	202.8	201.3	201.6	197.0	193.3	191.7	191.6	188.8
Layer cake..... do.....	49.4	107.3	107.9	106.0	105.8	103.1	100.0	.....	.....	.....	.....	.....	.....	.....	.....
Meats, poultry, and fish:															
Meats:															
Beef:															
Round steak..... do.....	108.4	320.9	320.3	318.0	317.6	312.3	297.6	286.4	287.1	288.2	293.3	295.9	287.9	274.7	262.2
Rib roast..... do.....	83.5	299.0	294.6	292.8	294.2	298.0	273.3	266.0	265.3	270.2	271.7	272.1	264.1	255.3	248.5
Chuck roast..... do.....	73.9	327.1	326.2	324.1	323.2	315.0	298.1	286.9	287.4	289.7	291.3	290.1	270.2	262.6	245.1
Frankfurters..... do.....	64.7	106.5	106.2	106.4	105.7	104.4	100.0	.....	.....	.....	.....	.....	.....	.....	.....
Hamburger..... do.....	66.4	216.9	219.7	218.8	217.5	212.1	201.0	196.6	196.5	197.4	197.5	189.3	181.8	176.3	164.6
Veal:															
Cutlets..... do.....	126.4	315.4	311.9	308.6	308.0	300.2	286.7	281.1	281.0	280.1	277.8	279.3	271.2	263.1	255.8
Pork:															
Chops..... do.....	77.3	234.2	233.4	235.7	235.6	228.1	216.6	221.8	222.9	226.1	233.5	236.6	243.5	238.0	196.9
Bacon, sliced..... do.....	67.8	177.6	177.6	178.2	178.0	175.9	171.9	174.8	183.9	184.3	181.7	171.4	161.9	158.9	158.9
Ham, whole..... do.....	66.5	226.3	228.0	230.1	229.7	224.9	212.7	204.9	216.7	223.6	226.4	229.7	215.8	206.6	192.8
Salt pork..... do.....	38.9	184.9	187.9	188.0	187.5	186.7	184.2	183.6	184.9	188.1	179.6	164.0	160.5	152.5	153.2
Lamb:															
Leg..... do.....	83.2	293.8	288.7	285.0	284.1	277.9	273.3	268.4	263.5	268.4	271.2	273.3	272.4	266.2	238.1
Poultry:															
Frying chickens..... do.....	198.9	198.5	198.9	198.3	184.3	179.3	180.1	187.2	187.2	196.2	202.3	199.8	185.1	184.4	158.9
New York dressed..... do.....	80.7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dressed and drawn..... do.....	61.9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fish:															
Fish (fresh, frozen)..... do.....	(9)	287.1	286.4	287.6	283.7	283.0	279.5	278.5	277.1	276.2	272.8	270.0	268.4	264.9	272.2
Salmon, pink..... 16 ounce can.....	63.3	811.7	808.1	802.4	801.1	493.7	484.5	473.1	446.9	381.1	357.9	344.8	344.1	346.4	355.9
Dairy products:															
Butter..... pound.....	81.3	223.9	219.7	224.0	226.1	228.0	206.7	205.0	204.1	196.0	197.9	195.6	195.4	196.0	201.1
Cheese, American process..... do.....	58.9	260.3	265.7	265.7	264.3	254.9	232.4	230.3	228.5	229.0	228.2	226.3	226.2	228.0	231.1
Milk, fresh (delivered)..... quart.....	22.7	184.9	185.6	185.4	184.5	183.1	173.0	175.3	177.7	170.6	167.5	164.2	160.4	160.8	167.9
Milk, fresh (grocery)..... do.....	21.3	185.9	186.9	187.3	186.7	185.7	180.6	181.1	180.3	174.2	170.0	165.7	162.0	162.9	170.2
Ice cream..... pint.....	31.2	104.7	105.2	104.9	105.4	104.2	100.0	.....	.....	.....	.....	.....	.....	.....	.....
Milk, evaporated..... 14 1/2 ounce can.....	14.4	202.8	203.2	202.4	201.0	194.1	183.7	183.0	183.8	181.1	177.8	173.9	174.2	174.8	175.1
Eggs, fresh..... dozen.....	69.2	198.4	199.1	195.2	179.8	191.5	249.4	205.4	206.2	192.1	182.2	163.3	149.4	143.7	152.3
Fruits and vegetables:															
Frozen fruits:															
Strawberries..... 16 ounces.....	57.9	98.7	100.5	101.3	101.3	100.8	100.0	.....	.....	.....	.....	.....	.....	.....	.....
Orange juice..... 6 ounces.....	24.6	105.0	105.1	104.2	102.4	102.0	100.0	.....	.....	.....	.....	.....	.....	.....	.....
Frozen vegetables:															
Peas..... 12 ounces.....	24.6	98.3	98.3	100.1	99.9	99.1	100.0	.....	.....	.....	.....	.....	.....	.....	.....
Fresh fruits:															
Apples..... pound.....	11.4	213.6	205.1	206.0	206.4	204.4	195.3	187.0	190.3	229.5	237.5	240.6	231.1	226.3	178.6
Bananas..... do.....	16.5	274.2	273.9	276.3	274.0	266.5	271.0	266.4	261.4	247.1	263.8	268.6	271.9	274.1	273.1
Oranges, size 200..... dozen.....	46.6	163.7	158.0	166.1	173.4	153.3	166.5	176.3	191.0	173.4	174.0	182.9	172.8	168.0	166.5
Fresh vegetables:															
Beans, green..... pound.....	22.8	212.7	203.7	193.3	244.8	305.8	210.6	228.4	154.5	160.1	143.7	165.6	151.0	210.0	274.9
Cabbage..... do.....	7.1	191.0	225.6	386.5	425.2	239.6	158.5	125.6	126.5	134.3	142.5	158.7	174.3	174.0	173.9
Carrots..... bunch.....	10.7	196.5	192.9	220.4	258.7	306.0	203.8	203.1	177.0	160.2	181.2	195.1	181.7	178.3	202.6
Lettuce..... head.....	19.0	229.8	212.1	149.2	189.3	164.3	167.6	173.3	159.2	155.8	160.7	138.9	167.8	189.6	229.1
Onions..... 5 pound.....	9.7	235.1	186.7	175.8	175.2	144.0	133.1	128.9	133.8	148.7	174.0	196.4	187.1	216.9	216.9
Potatoes..... 16 pounds.....	73.8	202.5	185.0	179.1	177.6	172.3	163.8	154.0	163.5	178.8	202.0	216.3	219.3	207.1	196.5
Sweet potatoes..... pound.....	10.4	201.5	192.4	190.3	189.7	182.5	177.5	161.2	159.3	164.8	216.0	208.5	209.4	219.0	205.6
Tomatoes..... do.....	29.9	196.6	160.1	216.1	218.7	254.7	193.6	167.9	131.6	86.1	117.5	215.4	208.3	214.1	163.3
Canned fruits:															
Peaches..... No. 2 1/2 can.....	33.6	174.6	174.3	173.8	172.8	172.1	168.2	166.7	164.6	168.3	151.5	142.4	140.1	138.2	141.8
Pineapple..... do.....	38.8	178.8	179.7	178.3	178.5	177.5	176.1	176.0	175.7	175.0	174.8	172.7	172.0	174.1	174.2
Canned vegetables:															
Corn..... No. 303 can.....	17.8	164.4	163.6	162.8	161.8	159.5	154.3	150.5	147.8	141.4	139.5	137.5	138.4	137.3	144.1
Tomatoes..... No. 2 can.....	20.3	226.4	222.6	215.9	209.1	191.2	176.3	172.0	169.1	164.4	163.9	161.5	161.6	158.2	158.2
Peas..... No. 303 can.....	21.7	118.8	119.3	119.0	119.7	119.2	117.5	117.2	117.3	116.0	114.8	112.9	114.3	113.5	113.1
Baby foods..... 4 1/4-4 3/4 ounces.....	10.0	101.9	101.5	101.4	100.8	100.2	100.0	.....	.....	.....	.....	.....	.....	.....	.....
Dried fruits, prunes..... pound.....	27.7	273.1	273.3	272.1	271.4	268.0	264.6	261.4	253.4	242.0	238.2	235.7	236.7	236.7	235.5
Dried vegetables, navy beans..... do.....	17.3	233.8	235.5	235.4	234.9	231.8	226.7	218.8	214.0	210.7	209.4	202.7	203.4	206.9	206.9
Beverages:															
Coffee..... do.....	87.2	346.5	344.1	342.9	343.5	340.7	331.4	332.5	343.2	336.1	338.1	303.6	294.9	298.4	598.9
Cola drink..... 6-bottle carton.....	28.3	108.2	108.5	108.3	107.9	107.8	100.0	.....	.....	.....	.....	.....	.....	.....	.....
Fats and oils:															
Lard..... pound.....	24.9	167.8	173.7	174.4	173.3	166.3	149.5	142.0	142.6	136.1	137.9	118.7	116.0	112.5	113.1
Shortening, hydrogenated..... do.....	41.5	201.1	201.1	198.4	197.4	191.2	175.1	160.4	160.0	162.2	168.1	157.2	155.6	151.8	148.3
Salad dressing..... do.....	39.7	164.8	165.8	165.5	164.2	161.4	152.9	148.9	148.4	148.1	146.9	142.4	142.1	140.2	138.5
Margarine..... pound.....	19.7	197.8	199.9	199.1	199.5	195.9	179.9	173.0	173.5	174.5	173.7	164.2	161.1	160.5	159.3
Unclarified..... do.....	26.5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Colored..... do.....	36.9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sugar and sweets:															
Sugar..... 5 pounds.....	50.0	186.4	186.7	187.4	187.6	187.3	186.5	186.8	187.3	188.5	188.7	177.0	175.3	175.5	179.8
Grape jelly..... 12 ounces.....	24.1	101.0	101.5	100.8	100.5	100.3	100.0	.....	.....	.....	.....	.....	.....	.....	.....

<sup>1</sup> Specification changed to 13 ounces in December.<sup>2</sup> July 1947=100.



TABLE D-7: Indexes of Wholesale Prices,<sup>1</sup> by Group of Commodities, for Selected Periods

[1920=100]

Year and month	All commodities <sup>2</sup>	Farm products	Foodstuffs	Hides and leather products	Textile products	Fuel and lighting materials	Metals and metal products <sup>3</sup>	Building materials	Chemicals and allied products	Household goods	Miscellaneous commodities	Raw materials	Semi-manufactured articles	Manufactured products <sup>4</sup>	All commodities except farm products <sup>5</sup>	All commodities except farm products and foods <sup>6</sup>
1913: Average.....	60.8	71.5	64.2	68.1	57.3	61.3	90.8	56.7	80.2	55.1	93.1	68.8	74.9	69.4	69.0	70.0
1914: July.....	67.3	71.4	62.9	69.7	55.3	55.7	79.1	52.9	77.9	56.7	88.1	67.3	67.8	66.9	65.7	63.7
1918: November.....	136.3	150.3	128.6	131.6	142.6	114.3	143.5	101.8	178.0	99.2	142.3	138.8	162.7	130.4	131.0	129.9
1920: May.....	167.2	169.8	147.3	163.2	188.3	159.8	155.5	164.4	173.7	143.3	175.5	163.4	253.0	157.8	163.4	170.6
1929: Average.....	95.3	104.9	99.9	109.1	90.4	83.0	100.5	95.4	94.0	94.3	82.6	97.5	93.9	94.5	93.3	91.6
1932: Average.....	64.8	48.2	61.0	72.9	54.9	70.3	80.2	71.4	73.9	75.1	64.4	55.1	59.3	70.3	68.3	70.2
1939: Average.....	77.1	65.3	70.4	95.6	69.7	75.1	94.4	90.5	78.0	86.3	74.8	70.2	77.0	80.4	79.5	81.3
August.....	75.0	61.0	67.2	92.7	67.8	72.6	93.2	89.6	74.2	85.6	72.3	66.5	74.5	79.1	77.9	80.1
1940: Average.....	78.6	67.7	71.3	100.8	73.8	71.7	95.8	94.8	77.0	88.5	77.3	71.9	79.1	81.6	80.8	83.0
1941: Average.....	87.3	82.4	82.7	108.3	84.8	76.2	95.4	103.2	84.4	94.3	82.0	83.5	86.9	80.1	88.3	89.0
December.....	93.6	94.7	90.5	114.8	91.8	78.4	105.3	107.8	98.4	101.1	87.6	92.3	90.1	94.6	93.3	93.7
1942: Average.....	98.8	105.9	99.6	117.7	96.9	78.5	103.8	110.2	95.5	102.4	89.7	100.6	92.6	98.6	97.0	95.5
1943: Average.....	103.1	122.6	108.6	117.5	97.4	80.8	103.8	111.4	94.9	102.7	92.2	112.1	92.9	100.1	98.7	96.9
1944: Average.....	104.0	123.3	104.9	116.7	98.4	83.0	103.8	115.5	95.2	104.3	93.6	113.2	94.1	100.8	99.6	98.5
1948: Average.....	105.8	128.2	106.2	118.1	100.1	84.0	104.7	117.8	95.2	104.5	94.7	116.8	95.9	101.8	100.8	99.7
August.....	105.7	128.9	106.4	118.0	99.6	84.8	104.7	117.8	95.3	104.5	94.8	116.3	95.5	101.8	100.9	99.9
1946: Average.....	121.1	148.9	130.7	137.2	116.3	90.1	115.5	132.6	101.4	111.6	100.3	134.7	119.8	116.1	114.9	109.5
June.....	112.9	140.1	112.9	122.4	109.2	87.8	112.2	129.9	96.4	110.4	98.5	126.3	103.7	107.3	106.7	103.8
November.....	130.7	169.8	165.4	172.5	131.6	94.5	130.2	145.5	118.9	118.2	106.5	153.4	129.1	134.7	132.9	120.7
1947: Average.....	152.1	181.2	168.7	182.4	141.7	108.7	145.0	179.7	127.3	131.1	115.5	165.6	148.5	146.0	145.5	135.2
1948: Average.....	165.1	188.3	179.1	188.8	149.8	134.2	163.6	199.1	135.7	144.5	120.5	178.4	158.0	159.4	159.8	151.0
1949: Average.....	155.0	165.5	161.4	180.4	140.4	131.7	170.2	193.4	118.6	145.3	112.3	163.9	159.2	151.2	152.4	147.3
1950: Average.....	161.5	170.4	160.2	191.9	148.0	133.2	173.6	206.0	122.7	153.2	120.9	172.4	150.0	156.8	159.2	153.2
May.....	155.9	164.7	159.9	181.0	136.1	131.9	169.9	198.1	116.4	146.6	114.7	169.3	145.8	152.1	153.7	147.6
June.....	157.3	165.9	162.1	182.6	136.8	132.6	171.9	202.1	114.5	146.9	114.7	167.7	148.4	153.5	155.2	148.7
July.....	162.9	176.0	171.4	187.2	142.6	133.5	172.4	207.2	118.1	148.7	119.0	175.8	152.9	158.0	159.8	151.6
August.....	166.4	177.6	174.6	195.6	149.5	134.2	174.4	213.9	122.5	153.9	124.3	179.1	159.3	161.2	163.7	155.5
September.....	169.5	180.4	177.2	203.0	158.3	134.9	176.7	219.7	128.7	159.2	127.4	181.8	163.7	164.0	166.9	159.2
October.....	169.1	177.8	172.5	208.6	163.1	135.3	178.6	218.9	132.2	163.8	131.3	180.2	169.3	163.5	166.9	161.5
November.....	171.7	183.7	175.2	211.5	166.8	133.7	180.4	217.8	135.7	166.9	137.6	184.5	174.0	165.1	168.8	163.7
December.....	175.3	187.4	179.0	215.7	171.4	135.7	184.9	221.4	139.6	170.2	140.5	187.1	178.1	169.0	172.4	166.7
1951: January.....	180.1	194.2	182.2	224.8	178.2	136.4	187.5	225.1	144.5	174.7	142.4	192.6	185.0	173.1	175.7	170.3
February.....	183.6	202.4	187.6	238.2	181.1	138.1	188.1	228.1	147.3	175.4	142.7	199.1	187.1	175.5	176.2	171.8
March.....	184.0	203.8	186.6	235.2	183.2	136.0	188.8	229.5	146.4	178.8	142.5	199.4	187.5	175.8	179.3	172.4
April.....	183.5	202.5	185.7	232.6	182.8	138.1	189.0	228.5	144.3	179.9	142.7	197.7	187.1	175.9	179.0	172.2
May.....	182.8	199.6	187.2	232.0	181.9	137.5	188.8	227.8	142.8	179.8	141.7	195.5	186.5	176.0	178.9	171.5

<sup>1</sup> BLS wholesale price data, for the most part, represent prices in primary markets. They are prices charged by manufacturers or producers or are prices prevailing on organized exchanges. The weekly index is calculated from 1-day-a-week prices; the monthly index from an average of these prices. Monthly indexes for the last 2 months are preliminary.

The indexes currently are computed by the fixed base aggregate method, with weights representing quantities produced for sale in 1929-31. (For a detailed description of the method of calculation see "Revised Method of Calculation of the Bureau of Labor Statistics Wholesale Price Index," in the Journal of the American Statistical Association, December 1937.)

Mimeographed tables are available, upon request to the Bureau, giving monthly indexes for major groups of commodities since 1890 and for subgroups and economic groups since 1913. The weekly wholesale price indexes are

available in summary form since 1947 for all commodities; all commodities less farm products and foods; farm products; foods; textile products; fuel and lighting materials; metals and metal products; building materials, and chemicals and allied products. Weekly indexes are also available for the subgroups of grains, livestock, and meats.

<sup>2</sup> Includes current motor vehicle prices beginning with October 1948. The rate of production of motor vehicles in October 1946 exceeded the monthly average rate of civilian production in 1941, and in accordance with the announcement made in September 1946, the Bureau introduced current prices for motor vehicles in the October calculations. During the war, motor vehicles were not produced for general civilian sale and the Bureau carried April 1942 prices forward in each computation through September 1946.

<sup>3</sup> Corrected.



TABLE D-8: Indexes of Wholesale Prices,<sup>1</sup> by Group and Subgroup of Commodities

[1926=100]

Group and subgroup	1951					1950								1946	1939
	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	June	Aug.
All commodities <sup>1</sup> .....	182.8	183.5	184.0	183.6	180.1	175.3	171.7	169.1	169.5	166.4	162.9	157.3	155.9	112.9	78.0
Farm products.....	199.6	*202.5	203.8	202.6	194.2	187.4	183.7	177.8	180.4	177.6	176.0	165.9	164.7	140.1	61.0
Grains.....	185.6	189.1	188.0	192.0	186.6	180.9	172.1	165.3	166.5	167.7	173.0	169.3	172.3	151.8	51.8
Livestock and poultry <sup>2</sup> .....	234.8	240.9	241.2	238.2	222.2	204.9	197.3	198.7	211.3	217.3	215.8	197.5	194.6	137.4	68.0
Livestock <sup>3</sup> .....	263.6	269.9	270.4	268.0	250.6	231.8	222.6	223.8	237.5	243.8	242.5	222.4	218.5	143.4	67.7
Poultry <sup>4</sup> .....	96.5	102.1	101.1	94.3	84.7	74.5	74.9	77.1	85.3	90.2	87.6	77.2	79.6	(7)	(7)
Other farm products.....	181.0	187.1	184.3	182.8	178.2	177.4	177.4	167.4	164.4	155.3	151.8	145.0	143.7	137.5	60.1
Eggs <sup>5</sup> .....	128.6	128.1	124.7	117.0	116.5	140.5	148.2	140.1	128.8	110.1	103.8	91.3	85.4	47.7	47.8
Foodstuffs.....	187.2	185.7	186.6	187.6	182.2	179.0	175.2	172.5	177.2	174.6	171.4	162.1	159.1	112.9	67.3
Dairy products.....	164.9	166.6	170.3	173.0	171.5	164.4	164.1	160.1	164.7	148.0	141.8	135.9	138.0	127.3	67.9
Cereal products.....	163.6	164.5	164.5	166.3	163.0	157.6	154.1	153.8	155.5	154.9	151.2	145.6	146.0	101.7	71.9
Fruits and vegetables.....	145.9	139.3	139.9	142.4	136.1	138.0	140.4	129.5	131.0	132.0	137.0	140.5	139.2	136.1	58.5
Meats, poultry, fish <sup>6</sup> .....	257.2	261.1	264.5	255.2	242.7	233.7	223.4	223.7	241.0	240.2	240.7	223.7	217.1	110.1	73.7
Meats.....	276.3	274.1	273.7	274.8	261.5	251.9	240.5	240.8	259.5	258.3	260.1	241.4	234.0	116.6	78.1
Poultry.....	113.5	112.5	108.7	107.1	98.2	92.3	90.8	90.2	96.0	103.5	97.0	91.5	90.0	(7)	(7)
Other foods.....	160.7	158.8	160.0	159.0	157.7	161.5	158.9	156.4	158.7	154.1	145.1	133.1	130.9	96.1	60.3
Hides and leather products.....	232.0	232.6	236.2	238.2	234.8	*218.7	*211.5	*208.6	*203.0	195.6	187.2	182.6	181.0	122.4	92.7
Shoes.....	222.4	222.1	222.0	224.6	219.4	*209.3	*203.7	*200.5	*194.9	191.4	185.8	184.8	185.0	129.8	100.8
Hides and skins.....	230.8	227.8	233.0	231.8	218.2	227.5	229.3	226.3	264.7	238.2	219.8	202.1	194.4	121.8	77.2
Leather.....	228.2	228.7	229.2	229.1	224.8	213.8	204.9	201.3	196.8	192.3	185.3	180.6	179.3	110.7	84.0
Other leather products.....	180.6	180.6	188.2	188.0	185.0	173.9	164.9	161.9	151.3	151.3	143.1	143.1	143.1	118.2	97.1
Textile products.....	181.9	*182.8	183.2	181.1	178.2	*171.4	*166.8	163.1	158.3	149.5	142.6	136.8	136.1	100.2	67.8
Clothing.....	113.9	113.9	113.9	116.1	115.4	115.4	115.4	115.4	147.7	146.7	145.2	144.3	*143.9	*143.9	120.3
Cotton goods.....	234.1	236.2	239.9	240.5	239.2	*236.6	*231.7	225.7	221.6	206.8	190.7	173.8	172.0	139.4	63.8
Hosiery and underwear.....	113.5	*113.5	*113.5	113.8	113.2	113.7	111.4	109.2	105.3	101.2	99.2	97.7	97.7	73.8	61.5
Rayon and nylon <sup>7</sup> .....	43.1	43.1	43.1	43.1	43.1	43.0	42.7	42.5	41.7	41.3	40.7	39.9	39.9	30.2	28.5
Silk.....	75.3	*85.2	90.8	90.8	86.1	75.0	69.0	65.3	64.9	63.6	60.3	59.3	59.3	(7)	44.3
Woolen and worsted.....	243.4	243.7	240.2	227.3	217.4	*195.6	*192.7	*189.1	178.7	178.7	170.9	168.9	148.3	148.3	112.7
Other textile products.....	247.0	249.2	246.1	243.8	238.1	229.6	210.4	207.3	191.3	181.5	168.5	164.5	164.6	112.3	63.7
Fuel and lighting materials.....	137.5	138.1	138.6	138.1	136.4	*135.7	*135.3	*135.3	*134.9	*134.2	*133.5	*132.6	*131.9	87.8	72.6
Anthracite.....	151.0	152.8	156.1	156.5	145.8	145.7	144.7	143.9	142.8	142.1	141.0	140.1	139.2	106.1	72.1
Bituminous coal.....	196.0	196.4	197.1	197.5	193.2	193.2	193.2	193.3	*193.2	192.5	191.9	192.1	192.6	133.8	96.0
Coke.....	234.8	234.8	234.5	234.1	222.8	232.7	232.5	231.1	225.6	225.6	225.6	225.6	225.6	133.0	91.2
Electricity.....	(7)	65.1	(7)	66.4	65.4	65.7	65.5	65.2	65.6	65.5	67.0	67.0	66.6	67.2	78.8
Gas.....	(7)	93.3	90.8	92.2	90.0	90.2	90.5	88.9	89.0	88.1	88.3	87.3	87.2	79.6	86.7
Petroleum and products <sup>8</sup> .....	119.7	120.0	120.3	119.4	119.4	118.0	118.1	118.0	117.8	116.8	115.5	113.9	112.6	64.0	61.7
Metals and metal products <sup>9</sup> .....	188.8	*189.0	188.8	188.1	187.5	*184.9	180.4	178.6	176.7	*174.4	172.4	171.9	*169.9	112.3	83.3
Agricultural machinery and equipment <sup>10</sup> .....	159.1	*159.1	*159.1	159.0	156.2	*155.7	*153.3	*152.1	150.3	*145.6	*144.0	*143.8	143.7	104.5	93.5
Farm machinery <sup>11</sup> .....	161.1	161.1	*161.1	161.0	158.4	*158.2	*155.8	154.5	152.7	147.7	146.2	146.0	146.0	104.0	94.7
Iron and steel.....	185.9	*185.9	185.6	185.7	185.7	182.1	174.0	173.2	172.2	171.0	169.8	169.4	*168.8	110.1	95.1
Steel mill products.....	186.2	186.2	186.2	186.2	186.1	183.2	172.8	172.7	172.5	172.3	172.3	172.2	171.8	112.2	98.5
Semi-finished.....	196.2	196.2	196.2	196.2	196.2	196.2	185.4	185.4	185.4	185.4	185.4	185.4	185.4	108.9	98.0
Finished.....	184.0	184.0	184.0	184.0	184.0	181.6	171.2	171.1	170.9	170.6	170.6	170.4	170.1	112.8	98.0
Motor vehicles <sup>12</sup> .....	184.1	184.1	184.1	179.0	178.8	178.4	176.9	176.8	176.5	176.1	175.1	175.1	175.1	135.5	92.5
Passenger cars.....	160.7	160.7	160.7	161.1	161.1	161.1	161.1	161.1	161.1	161.1	161.1	161.1	161.1	142.8	95.6
Trucks.....	143.1	143.1	143.1	143.1	142.2	140.6	133.9	133.9	133.9	133.1	132.9	133.0	133.0	104.5	77.4
Nonferrous metals.....	182.8	184.1	183.5	181.1	187.9	182.5	181.7	173.5	169.1	156.3	150.6	145.4	136.3	99.2	74.6
Plumbing and heating.....	183.7	183.7	183.7	183.7	183.7	183.6	182.5	177.2	166.9	164.6	156.5	*156.4	156.4	106.0	79.3
Plumbing <sup>13</sup> .....	139.4	139.4	139.4	139.4	139.4	139.3	137.3	132.0	125.4	123.9	116.9	116.7	116.6	(7)	(7)
Building materials.....	227.8	228.5	228.5	228.1	226.1	*221.4	217.8	218.9	*219.7	213.9	*207.2	202.1	198.1	129.9	86.6
Brick and tile.....	180.8	180.8	180.8	180.8	180.7	*179.1	*177.6	*177.2	*170.2	*167.9	*165.4	164.3	163.9	121.8	90.5
Cement.....	147.2	*147.2	147.1	147.1	147.2	141.2	140.8	140.2	136.3	135.5	135.3	134.9	134.9	102.6	91.3
Lumber.....	359.0	361.0	361.2	359.8	356.8	348.4	347.6	338.4	271.5	257.6	238.0	232.6	230.8	176.0	90.1
Paint, paint materials <sup>14</sup> .....	167.3	164.7	164.4	164.0	162.1	154.9	148.2	145.7	145.9	142.4	138.6	137.7	136.8	108.6	82.1
Prepared paint <sup>15</sup> .....	153.9	153.9	153.3	153.3	152.1	147.3	143.6	142.4	142.4	141.3	138.6	138.5	138.5	99.3	92.9
Paint materials <sup>16</sup> .....	177.6	176.6	176.8	176.9	176.2	166.2	156.1	152.1	152.4	146.2	141.3	139.5	137.6	120.9	71.8
Plumbing and heating.....	183.7	183.7	183.7	183.7	183.7	183.6	182.5	177.2	166.9	164.6	156.5	156.4	156.4	106.0	79.3
Plumbing.....	139.4	139.4	139.4	139.4	139.4	139.3	137.3	132.0	125.4	123.9	116.9	116.7	116.6	(7)	(7)
Structural steel.....	204.3	204.3	204.3	204.3	204.3	204.3	191.6	191.6	191.6	191.6	191.6	191.6	191.6	120.1	107.3
Other bldg. materials.....	198.2	198.3	198.2	198.2	195.8	193.8	189.4	186.6	182.5	178.7	177.4	175.0	172.7	118.4	89.5
Chemicals and allied products.....	142.8	144.3	144.6	147.3	144.5	139.6	*135.7	132.2	*128.7	122.5	118.1	114.5	116.4	96.4	74.2
Chemicals.....	138.4	138.2	138.2	139.0	138.1	136.1	134.3	131.6	125.4	*121.9	*119.1	*117.1	*116.3	98.0	83.8
Drug and pharmaceutical materials.....	185.2	184.5	185.1	185.2	184.4	175.1	163.8	161.1	153.4	135.0	129.1	122.7	122.3	100.4	77.1
Fertilizer materials.....	117.1	117.8	118.1	118.1	118.1	115.6	112.0	111.2	111.4	110.2	110.1	*108.6	110.8	82.7	65.5
Mixed fertilizers.....	108.9	108.6	108.9	108.9	108.9	107.4	105.4	105.4	*105.4	*103.4	*103.4	*103.7	*103.7	80.6	73.1
Oils and fats.....	186.4	196.7	214.6	217.3	200.4	180.9	171.8	160.3	163.9	*142.7	*126.0	111.9	*122.3	102.1	40.6
Housefurnishing goods.....	179.8	179.9	178.8	175.4	174.7	*170.2	166.9	163.8	159.2	153.9	145.7	146.9	146.6	110.4	85.6
Furnishings.....	195.5	195.5	193.4	189.9	186.2	*180.6	176.6	*173.6	168.1	162.8	156.2	154.2	154.1	114.5	90.0
Furniture <sup>17</sup> .....	162.9	163.2	163.2	163.2	162.7	159.2	156.7	*153.6	140.9	144.6	141.0	138.4	1		



## E: Work Stoppages

TABLE E-1: Work Stoppages Resulting From Labor-Management Disputes<sup>1</sup>

Month and year	Number of stoppages		Workers involved in stoppages		Man-days idle during month or year	
	Beginning in month or year	In effect during month	Beginning in month or year	In effect during month	Number	Percent of estimated working time
1935-39 (average).....	2,862	-----	1,130,000	-----	16,900,000	0.27
1945.....	4,750	-----	3,470,000	-----	38,000,000	.47
1946.....	4,985	-----	4,600,000	-----	116,000,000	1.43
1947.....	3,693	-----	2,170,000	-----	34,600,000	.41
1948.....	3,419	-----	1,960,000	-----	34,100,000	.37
1949.....	3,606	-----	3,030,000	-----	50,800,000	.60
1950.....	4,843	-----	2,410,000	-----	38,800,000	.44
1950: May.....	485	723	354,000	508,000	3,270,000	.44
June.....	485	798	278,000	373,000	2,630,000	.34
July.....	463	732	224,000	389,000	2,750,000	.39
August.....	635	918	346,000	441,000	2,660,000	.32
September.....	821	820	279,000	450,000	3,510,000	.48
October.....	530	801	197,000	330,000	2,590,000	.32
November.....	229	905	208,000	398,000	2,050,000	.27
December.....	218	423	61,100	114,000	912,000	.12
1951: January <sup>2</sup> .....	400	550	185,000	215,000	1,200,000	.15
February <sup>2</sup> .....	350	550	220,000	300,000	1,700,000	.25
March <sup>2</sup> .....	350	550	140,000	280,000	2,300,000	.29
April <sup>2</sup> .....	350	550	165,000	235,000	1,850,000	.25
May <sup>2</sup> .....	400	580	150,000	250,000	1,750,000	.22

<sup>1</sup> All known work stoppages, arising out of labor-management disputes, involving six or more workers and continuing as long as a full day or shift are included in reports of the Bureau of Labor Statistics. Figures on "workers involved" and "man-days idle" cover all workers made idle for one or more

shifts in establishments directly involved in a stoppage. They do not measure the indirect or secondary effects on other establishments or industries whose employees are made idle as a result of material or service shortages.

<sup>2</sup> Preliminary.



## F: Building and Construction

TABLE F-1: Expenditures for New Construction <sup>1</sup>

(Value of work put in place)

Type of construction	Expenditures (in millions)													
	1951						1950							
	June <sup>2</sup>	May <sup>2</sup>	Apr. <sup>2</sup>	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	Total
Total new construction <sup>4</sup> .....	\$2,700	\$2,550	\$2,287	\$2,188	\$1,973	\$2,100	\$2,234	\$2,569	\$2,773	\$2,848	\$2,817	\$2,696	\$2,865	\$27,902
Private construction.....	1,821	1,727	1,673	1,603	1,518	1,586	1,721	1,901	2,025	2,095	2,090	2,016	1,892	20,789
Residential building (nonfarm).....	830	870	882	852	827	902	1,003	1,131	1,247	1,322	1,322	1,259	1,178	12,640
New dwelling units.....	810	780	795	775	750	830	923	1,040	1,145	1,211	1,212	1,161	1,072	11,525
Additions and alterations.....	82	80	71	61	60	55	62	73	84	94	93	95	92	900
Nonhousekeeping <sup>5</sup> .....	17	16	16	16	17	17	18	18	18	17	17	15	14	175
Nonresidential building (nonfarm).....	463	433	407	399	384	378	365	403	382	354	353	324	305	3,228
Industrial.....	179	160	150	142	135	129	125	120	112	101	91	84	78	1,062
Commercial.....	130	130	125	128	121	122	140	149	136	121	114	116	110	1,258
Warehouses, office and loft buildings.....	47	47	45	45	46	47	48	47	43	39	35	31	28	492
Stores, restaurants, and garages.....	83	83	80	83	75	75	92	102	93	82	79	85	82	883
Other nonresidential building.....	154	143	132	129	128	127	130	134	134	132	128	124	117	1,229
Religious.....	41	38	35	35	35	37	39	40	40	39	37	35	33	409
Educational.....	29	27	26	26	27	28	29	29	29	28	26	24	22	294
Social and recreational <sup>6</sup> .....	15	14	15	16	18	19	20	22	23	23	24	23	21	247
Hospital and institutional <sup>7</sup> .....	38	37	34	32	31	30	30	30	30	30	30	30	30	344
Miscellaneous.....	31	27	22	20	17	15	12	13	12	12	11	12	11	133
Farm construction.....	126	113	95	83	76	72	71	81	95	115	127	125	118	1,170
Public utilities.....	318	300	283	264	226	229	247	279	294	297	297	287	278	3,130
Railroad.....	31	31	29	26	20	26	28	32	32	29	29	28	26	315
Telephone and telegraph.....	42	42	40	39	33	34	35	38	39	39	40	39	39	440
Other public utilities.....	245	227	214	199	173	169	184	209	221	229	228	220	213	2,375
All other private <sup>8</sup> .....	5	5	5	5	5	5	6	7	7	7	11	11	13	112
Public construction.....	879	823	714	585	455	514	513	608	748	753	727	680	673	6,403
Residential building <sup>9</sup> .....	51	46	44	42	36	33	30	31	30	28	27	24	28	345
Nonresidential building (other than military or naval facilities).....	313	310	292	251	210	224	216	228	247	250	213	202	201	2,402
Industrial.....	83	78	73	49	30	36	31	29	31	23	19	18	17	224
Educational.....	130	130	125	120	112	112	110	112	115	109	103	98	95	1,163
Hospital and institutional.....	32	32	48	42	36	39	39	42	42	42	42	39	39	476
Other nonresidential.....	48	50	46	40	32	37	36	45	59	56	49	47	50	530
Military and naval facilities <sup>10</sup> .....	85	80	59	39	29	29	24	26	28	21	16	10	9	177
Highways.....	250	215	160	110	65	95	103	221	265	298	295	273	266	2,350
Sewer and water.....	66	64	61	58	52	55	56	60	65	64	61	59	57	671
Miscellaneous public service enterprises <sup>11</sup> .....	21	20	17	14	9	12	13	19	21	20	20	17	16	186
Conservation and development.....	85	80	73	64	49	60	65	76	84	84	87	86	87	886
All other public <sup>12</sup> .....	8	8	8	7	5	6	6	7	8	8	8	9	9	96

<sup>1</sup> Joint estimates of the Bureau of Labor Statistics, U. S. Department of Labor, and the Building Materials Division, U. S. Department of Commerce. Estimated construction expenditures represent the monetary value of the volume of work accomplished during the given period of time. These figures should be differentiated from permit valuation data reported in the tabulations for building authorized (tables F-3 and F-4) and the data on value of contract awards reported in table F-2.

<sup>2</sup> Preliminary.

<sup>3</sup> Revised.

<sup>4</sup> Includes major additions and alterations.

<sup>5</sup> Includes hotels, dormitories, and tourist courts and cabins.

<sup>6</sup> Expenditures by privately owned public utilities for nonresidential building are included under "Public utilities."

<sup>7</sup> Includes Federal contributions toward construction of private nonprofit hospital facilities under the National Hospital Program.

<sup>8</sup> Covers privately owned sewer and water facilities, roads and bridges, and miscellaneous nonbuilding items such as parks and playgrounds.

<sup>9</sup> Includes nonhousekeeping public residential construction as well as housekeeping units.

<sup>10</sup> Covers all construction, building as well as nonbuilding (except for production facilities, which are included in public industrial building).

<sup>11</sup> Covers primarily publicly owned airports, electric light and power systems, and local transit facilities.

<sup>12</sup> Covers public construction not elsewhere classified, such as parks, playgrounds, and memorials.



TABLE F-2: Value of Contracts Awarded and Force-Account Work Started on Federally Financed New Construction, by Type of Construction<sup>1</sup>

Period	Total new construction <sup>1</sup>	Air ports <sup>2</sup>	Value (in thousands)										Conservation and development					
			Total	Residential	Building						Total	Recreation	River, harbor, and flood control	Highways	All other <sup>4</sup>			
					Nonresidential													
					Total	Educational <sup>5</sup>	Hospitals and institutional		Administrative and general <sup>6</sup>	Other non-residential								
							Total	Veterans								Other		
1935	\$1,478,073	(7)	\$442,782	\$7,833	\$434,949	(0)	(0)	(0)	(0)	(0)	(0)	\$438,725	\$158,027	\$280,698	\$381,037	\$215,529		
1936	1,533,439	(7)	501,394	63,405	437,929	(0)	(0)	(0)	(0)	(0)	(0)	189,710	73,797	115,913	511,085	270,650		
1937	990,410	(7)	344,567	17,209	327,328	(0)	(0)	(0)	(0)	(0)	(0)	133,010	59,051	73,959	360,863	151,968		
1938	1,400,338	(7)	476,542	31,509	444,733	(0)	(0)	(0)	(0)	(0)	(0)	303,874	175,382	128,492	372,238	236,554		
1939	1,566,604	\$4,753	669,222	231,071	438,151	(0)	(0)	(0)	(0)	(0)	(0)	225,423	115,612	109,811	355,701	331,505		
1940	2,316,467	137,112	1,537,910	244,671	1,293,239	(0)	(0)	(0)	(0)	(0)	(0)	197,589	69,028	128,561	364,048	70,808		
1941	5,931,536	490,427	4,422,131	322,248	4,099,883	(0)	(0)	(0)	(0)	(0)	(0)	199,654	81,880	157,804	446,903	363,391		
1942	7,871,986	578,176	6,226,878	365,247	5,861,631	(0)	(0)	(0)	(0)	(0)	(0)	217,795	150,708	67,087	347,588	500,149		
1943	2,877,044	243,443	2,638,337	408,537	2,229,800	(0)	(0)	(0)	(0)	(0)	(0)	155,737	101,270	54,467	161,852	247,675		
1944	1,861,449	110,872	1,438,849	117,504	1,321,345	(0)	(0)	(0)	(0)	(0)	(0)	112,415	66,679	43,736	111,805	87,508		
1945	1,062,181	41,219	806,917	60,535	746,382	(0)	(0)	(0)	(0)	(0)	(0)	72,150	30,765	41,385	100,969	70,926		
1946	1,502,701	15,068	617,132	452,204	164,928	\$14,654	\$14,281	\$9,032	\$3,249	\$2,113	\$126,270	\$20,163	149,870	140,293	534,653	45,685		
1947	1,473,910	23,075	454,565	60,694	393,866	47,740	101,962	96,140	5,852	32,550	211,607	307,695	75,483	232,212	659,645	26,902		
1948	1,906,466	55,577	543,118	47,194	495,920	1,454	263,290	168,616	94,680	9,926	201,274	494,871	147,732	347,139	707,490	45,440		
1949	2,174,203	49,317	880,101	46,800	833,301	1,041	355,541	123,967	231,574	83,856	387,863	497,557	184,803	312,754	690,469	56,759		
1950	2,705,630	54,461	1,278,263	15,445	1,263,818	3,123	389,848	118,565	271,283	88,255	811,592	435,253	195,845	239,408	835,006	103,067		
1949: January	97,047	8,520	40,410	101	40,309	148	8,192	428	7,764	28,008	6,961	15,141	7,506	7,545	34,465	1,511		
February	101,298	242	45,058	2,535	42,523	635	12,651	4,577	7,174	22,719	6,518	24,032	3,083	20,949	20,000	2,966		
March	182,992	4,268	45,051	4,602	40,449	0	26,663	9,612	17,051	1,747	12,039	84,342	22,546	61,796	41,646	7,665		
April	133,535	4,212	34,148	4,098	29,050	18	21,352	1,204	20,148	949	7,331	39,899	18,778	21,121	52,069	3,177		
May	257,834	7,233	71,383	6,245	65,138	30	22,640	1,645	21,004	13,658	27,801	80,536	61,557	27,969	83,769	5,913		
June	325,967	12,262	143,870	23,017	120,853	0	64,985	14,814	50,171	10,564	45,304	80,530	26,603	53,927	80,448	9,887		
July	142,768	4,818	37,979	821	37,158	10	22,756	202	22,554	2,018	12,374	22,115	6,822	15,293	75,448	2,408		
August	272,671	3,385	134,548	49	134,499	140	43,544	25,492	18,052	999	89,846	52,304	12,375	39,929	79,029	3,467		
September	178,584	1,962	83,971	446	83,525	0	57,095	20,500	31,495	838	24,992	20,679	10,179	10,500	63,038	3,967		
October	103,616	3,413	36,718	672	36,046	0	15,004	8,737	6,267	4,333	16,709	12,914	1,091	11,823	49,910	661		
November	222,263	790	131,881	9	131,872	60	16,000	7,387	9,213	5,308	109,904	42,186	5,677	36,509	38,100	9,306		
December	160,598	1,252	75,064	8,508	71,279	0	42,150	23,069	19,081	1,045	28,084	13,879	8,516	5,303	63,629	6,754		
1950: January	129,514	4,827	48,467	213	48,254	144	28,528	19,407	9,121	13,261	6,321	26,147	17,993	8,154	41,027	9,046		
February	119,057	2,533	38,020	127	37,893	138	32,081	17,354	14,727	1,259	4,415	29,953	7,087	22,866	42,357	6,194		
March	233,791	8,616	51,294	1,059	50,235	20	23,100	14,534	8,566	3,450	23,656	103,559	69,840	33,719	61,032	9,290		
April	169,416	7,341	68,516	2,453	66,063	70	40,184	21,949	18,215	2,985	20,224	20,572	7,782	12,790	65,462	11,525		
May	224,393	4,196	59,921	1,005	58,916	0	32,572	13,688	18,884	2,537	23,207	68,100	7,726	60,374	86,424	11,212		
June	367,371	7,345	135,460	5,847	129,613	1,923	68,384	7,766	60,618	25,880	33,426	80,602	43,720	36,882	111,416	14,548		
July	162,239	8,852	50,664	634	49,030	616	43,914	8,007	35,907	2,217	12,283	13,908	10,000	3,338	77,973	4,812		
August	178,555	5,247	66,961	60	66,901	174	28,741	1,450	27,291	1,849	36,137	15,910	8,364	7,546	83,816	6,921		
September	181,216	2,862	82,757	1,284	81,473	0	35,717	12,957	22,760	1,560	44,176	16,046	9,549	6,497	75,883	5,768		
October	240,426	4,000	145,796	200	145,596	19	19,797	643	19,154	1,234	124,546	19,630	13,471	6,159	55,132	15,308		
November	180,223	2,676	30,588	233	30,355	2	21,388	676	20,712	1,833	7,112	32,638	1,753	30,785	81,142	3,379		
December	350,579	1,006	472,819	730	472,089	17	15,442	114	15,328	541	456,069	8,298	2,960	5,268	65,432	5,064		
1951: January	414,191	9,412	105,651	846	104,805	96	14,818	110	14,708	728	89,163	213,044	206,077	6,967	75,551	10,533		
February	297,755	10,773	92,838	916	91,909	41	15,388	701	14,687	10,090	66,384	30,333	10,125	20,208	59,067	14,757		
March	286,083	6,330	134,681	39	134,642	179	42,943	19,141	23,802	8,773	82,747	45,613	13,346	30,267	71,238	28,223		
April	265,127	12,970	80,137	28	80,109	1,217	26,402	18,952	7,450	2,943	49,647	100,605	10,803	90,132	57,494	13,591		

<sup>1</sup> Excludes projects classified as "secret" by the military. Data for Federal-aid programs cover amounts contributed by both owner and the Federal Government. Force-account work is done not through a contractor, but directly by a government agency, using a separate work force to perform non-maintenance construction on the agency's own properties.

<sup>2</sup> Includes major additions and alterations.

<sup>3</sup> Excludes hangars and other buildings, which are included under "Other nonresidential" building construction.

<sup>4</sup> Includes educational facilities under the Federal temporary re-use educational facilities program.

<sup>5</sup> Includes post offices, armories, offices, and customhouses. Includes contract awards for construction at United Nations Headquarters in New York City, the principal awards having been for the Secretariat Building

(January 1949: \$23,410,000), for the Meeting Hall (January 1950: \$11,238,000), and for the General Assembly Building (June 1950: \$10,704,000).

<sup>6</sup> Includes electricification projects, water-supply and sewage-disposal systems, railroad construction, and other types of projects not elsewhere classified.

<sup>7</sup> Included in "All other."

<sup>8</sup> Unavailable.

<sup>9</sup> Includes primarily construction projects for the Atomic Energy Commission.

<sup>10</sup> Includes primarily steam-electric generating projects for the Tennessee Valley Authority.

<sup>11</sup> Revised.

<sup>12</sup> Preliminary.



TABLE F-3: Urban Building Authorized, by Principal Class of Construction and by Type of Building <sup>1</sup>

Period	Valuation (in thousands)										Number of new dwelling units—House-keeping only				
	Total all classes <sup>1</sup>	New residential building						New non-residential building	Additions, alterations, and repairs	Privately financed					
		Housekeeping				Publicly financed dwelling units	Non-house-keeping <sup>2</sup>			Total	1-family	2-family <sup>3</sup>	Multi-family <sup>4</sup>	Publicly-financed	
		Privately financed dwelling units													
		Total	1-family	2-family <sup>5</sup>	Multi-family <sup>6</sup>										
1942.....	\$2,707,573	\$508,570	\$478,658	\$42,629	\$77,283	\$296,933	\$22,910	\$1,510,688	\$278,472	184,892	138,908	15,747	30,237	95,946	
1946.....	4,743,414	2,114,835	1,830,200	103,042	181,531	355,587	43,369	1,458,002	771,023	430,193	358,131	24,326	47,718	98,310	
1947.....	5,563,348	2,885,374	2,361,752	131,036	372,596	42,249	29,831	1,713,489	862,404	502,312	393,006	33,423	75,283	8,833	
1948.....	6,972,784	3,422,927	2,745,219	181,493	496,215	138,334	38,034	2,367,940	1,004,549	516,179	392,532	36,306	87,341	15,114	
1949.....	7,396,274	3,724,924	2,845,399	132,365	747,160	285,627	39,785	2,408,445	937,493	575,286	413,543	26,431	135,312	32,194	
1950.....	10,408,292	5,865,912	4,845,104	179,214	779,594	301,961	84,508	3,127,760	1,090,142	796,143	623,330	33,302	139,511	34,363	
1950: April.....	923,720	577,702	481,674	18,046	77,982	14,677	4,725	238,650	87,969	81,188	63,382	3,237	14,569	1,766	
May.....	1,056,835	644,098	534,758	20,000	89,340	28,041	22,184	261,512	101,061	88,814	69,377	3,859	15,578	3,271	
June.....	1,045,894	613,915	518,444	15,421	80,050	4,584	5,063	308,910	113,391	82,934	66,885	2,828	13,221	513	
July.....	1,065,117	689,643	512,594	17,321	69,728	41,967	7,935	313,522	112,020	79,473	64,586	3,118	11,769	4,590	
August.....	1,097,651	606,346	501,480	17,328	87,529	36,510	8,690	330,836	115,268	79,140	61,740	2,502	14,408	4,041	
September.....	848,041	438,852	375,214	13,308	50,330	37,237	6,599	296,006	90,346	88,172	66,498	2,316	9,438	4,154	
October.....	870,325	428,078	371,263	12,782	52,033	14,460	4,406	329,428	93,955	55,210	43,761	2,313	9,136	1,619	
November.....	707,673	341,335	287,465	11,192	32,078	29,251	8,546	250,616	80,915	44,888	30,244	2,096	6,288	2,940	
December.....	781,384	345,278	291,219	9,267	44,762	78,095	4,919	280,717	74,375	44,697	34,810	1,747	8,140	9,289	
1951: January.....	758,917	379,178	329,624	14,169	35,445	9,066	3,123	270,314	97,256	48,786	39,346	2,913	6,627	972	
February.....	883,683	330,520	294,756	10,955	24,809	10,201	1,252	174,050	68,660	39,749	32,962	2,103	4,684	1,639	
March.....	770,269	400,763	350,550	14,580	35,633	5,956	3,082	263,920	90,538	50,668	41,206	2,816	6,646	579	
April.....	733,583	418,771	373,427	18,938	20,406	16,490	3,346	229,502	85,474	50,360	42,690	2,843	4,821	1,628	

<sup>1</sup> Building for which building permits were issued and Federal contracts awarded in all urban places, including an estimate of building undertaken in some smaller urban places that do not issue permits.

The data cover federally and nonfederally financed building construction combined. Estimates of non-Federal (private and State and local government) urban building construction are based primarily on building-permit reports received from places containing about 85 percent of the urban population of the country; estimates of federally financed projects are compiled from notifications of construction contracts awarded, which are obtained from other Federal agencies. Data from building permits are not adjusted to allow for lapsed permits or for lag between permit issuance and the start of construction. Thus, the estimates do not represent construction actually started during the month.

Urban, as defined by the Bureau of the Census, covers all incorporated places of 2,500 population or more in 1940, and, by special rule, a small number of unincorporated civil divisions.

<sup>2</sup> Covers additions, alterations, and repairs, as well as new residential and nonresidential building.

<sup>3</sup> Includes units in 1-family and 2-family structures with stores.

<sup>4</sup> Includes units in multifamily structures with stores.

<sup>5</sup> Covers hotels, dormitories, tourist cabins, and other nonhousekeeping residential buildings.

<sup>6</sup> Revised.

<sup>7</sup> Preliminary.



TABLE F-4: New Nonresidential Building Authorized in All Urban Places,<sup>1</sup> by General Type and by Geographic Division<sup>2</sup>

Geographic division and type of new nonresidential building	Valuation (in thousands)																
	1951								1950								
	Apr. <sup>3</sup>	Mar. <sup>4</sup>	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Total	Total		
<b>All types.....</b>	<b>\$229,502</b>	<b>\$263,090</b>	<b>\$174,600</b>	<b>\$270,314</b>	<b>\$280,717</b>	<b>\$250,616</b>	<b>\$226,426</b>	<b>\$206,006</b>	<b>\$330,836</b>	<b>\$313,322</b>	<b>\$308,910</b>	<b>\$291,512</b>	<b>\$238,650</b>	<b>\$3,127,760</b>	<b>\$2,408,445</b>	<b>\$2,408,445</b>	
New England.....	29,751	14,063	12,916	10,479	16,463	13,675	15,652	12,701	21,082	19,819	13,728	17,966	15,823	193,286	115,582	115,582	
Middle Atlantic.....	25,585	55,234	20,969	41,909	36,016	47,556	68,678	45,953	41,640	60,514	62,541	41,651	30,131	516,583	429,042	429,042	
East North Central.....	51,750	85,212	40,620	63,558	42,105	46,313	65,545	62,550	71,914	63,031	65,130	59,978	69,232	875,555	402,384	402,384	
West North Central.....	22,028	12,235	11,643	20,627	17,797	21,064	25,068	24,489	27,800	24,731	40,841	24,910	22,422	262,737	203,406	203,406	
South Atlantic.....	17,500	27,262	17,949	37,026	37,600	25,316	26,447	31,028	42,536	35,380	35,010	35,008	29,590	370,803	311,940	311,940	
East South Central.....	16,554	11,823	6,087	11,347	10,826	7,905	16,440	8,407	13,430	16,478	16,438	8,889	11,134	144,084	133,377	133,377	
West South Central.....	19,683	25,156	25,949	35,967	60,882	28,016	34,900	30,808	43,115	43,248	33,131	28,827	22,876	388,201	270,407	270,407	
Mountain.....	14,554	4,840	6,343	9,639	8,610	8,529	6,955	13,453	15,286	8,430	10,813	7,310	7,353	112,265	104,112	104,112	
Pacific.....	32,097	37,965	31,354	39,266	46,468	51,845	39,708	36,014	53,731	51,795	31,280	36,970	30,133	459,155	348,562	348,562	
<b>Industrial buildings<sup>1</sup>.....</b>	<b>37,432</b>	<b>45,980</b>	<b>24,005</b>	<b>36,678</b>	<b>26,646</b>	<b>27,228</b>	<b>44,892</b>	<b>29,203</b>	<b>31,373</b>	<b>29,866</b>	<b>24,575</b>	<b>20,893</b>	<b>18,962</b>	<b>296,803</b>	<b>203,609</b>	<b>203,609</b>	
New England.....	1,497	4,232	1,678	1,415	1,062	1,653	1,755	1,558	2,173	1,282	1,928	1,225	1,415	13,999	6,430	6,430	
Middle Atlantic.....	7,977	8,308	4,195	14,703	5,705	14,866	25,068	14,308	4,762	11,235	3,927	2,219	2,734	85,670	40,586	40,586	
East North Central.....	14,920	21,309	9,987	8,566	8,074	9,619	23,745	13,572	11,948	7,000	9,077	6,955	6,217	110,820	77,637	77,637	
West North Central.....	2,349	1,768	2,861	2,266	1,696	5,149	3,077	1,143	2,906	2,223	1,100	2,200	1,329	23,369	15,880	15,880	
South Atlantic.....	1,982	1,688	677	3,196	1,495	963	1,017	1,033	1,019	1,297	3,298	778	1,201	17,019	19,173	19,173	
East South Central.....	1,209	459	375	1,870	1,972	1,456	1,168	946	1,600	1,888	437	234	1,708	15,355	8,738	8,738	
West South Central.....	2,631	2,231	1,172	2,612	963	1,677	2,388	1,813	2,332	2,023	1,411	691	1,064	17,900	6,859	6,859	
Mountain.....	550	373	481	440	789	190	278	846	592	161	1,420	288	330	5,469	4,370	4,370	
Pacific.....	4,567	5,621	3,570	4,673	4,950	3,936	4,182	3,983	4,042	2,751	2,990	3,392	2,363	39,284	24,999	24,999	
<b>Commercial buildings<sup>1</sup>.....</b>	<b>61,914</b>	<b>69,317</b>	<b>55,922</b>	<b>103,244</b>	<b>119,091</b>	<b>95,985</b>	<b>117,922</b>	<b>93,691</b>	<b>124,668</b>	<b>96,505</b>	<b>97,177</b>	<b>100,893</b>	<b>83,128</b>	<b>1,122,583</b>	<b>752,810</b>	<b>752,810</b>	
New England.....	2,231	1,780	4,945	3,783	7,244	2,115	5,243	5,700	3,270	5,170	4,767	6,327	3,541	53,574	36,470	36,470	
Middle Atlantic.....	9,054	9,645	6,506	17,727	14,622	26,391	37,017	14,263	18,846	13,096	16,498	12,825	13,227	212,645	127,049	127,049	
East North Central.....	8,680	31,163	7,277	18,072	15,107	15,977	17,697	18,122	24,367	20,370	20,663	18,857	15,242	201,314	147,620	147,620	
West North Central.....	5,535	2,960	3,239	5,879	6,873	5,045	8,332	10,336	10,984	7,720	8,813	10,780	10,711	94,104	52,907	52,907	
South Atlantic.....	5,083	7,445	7,255	17,325	17,467	8,153	11,877	10,280	16,071	12,307	13,016	11,678	10,804	139,990	106,037	106,037	
East South Central.....	12,315	9,853	1,544	7,065	4,208	2,226	3,344	4,055	4,720	5,253	6,952	4,090	3,512	46,076	38,020	38,020	
West South Central.....	7,778	6,827	9,609	10,115	35,906	15,383	14,878	16,131	21,801	16,006	12,645	11,276	10,431	175,129	101,025	101,025	
Mountain.....	2,674	1,238	1,132	2,424	3,014	3,620	3,308	4,758	6,994	3,948	3,425	3,682	3,639	47,481	25,589	25,589	
Pacific.....	8,455	7,927	12,315	14,924	14,580	14,682	16,455	18,505	17,116	12,543	11,668	11,668	9,631	152,166	119,895	119,895	
<b>Community buildings<sup>1</sup>.....</b>	<b>100,648</b>	<b>124,661</b>	<b>70,913</b>	<b>94,835</b>	<b>98,545</b>	<b>85,024</b>	<b>118,520</b>	<b>111,346</b>	<b>130,167</b>	<b>136,061</b>	<b>127,388</b>	<b>114,538</b>	<b>107,971</b>	<b>1,290,978</b>	<b>1,018,537</b>	<b>1,018,537</b>	
New England.....	22,780	4,789	5,773	4,556	6,530	9,025	2,238	3,520	11,839	11,743	6,528	6,151	5,632	107,541	43,770	43,770	
Middle Atlantic.....	6,229	34,325	8,151	10,470	9,959	12,562	20,957	24,137	13,764	19,722	18,849	18,825	10,797	169,036	179,463	179,463	
East North Central.....	20,674	28,233	18,721	26,000	14,077	16,401	37,411	21,638	24,944	26,308	26,119	24,911	42,260	275,029	201,508	201,508	
West North Central.....	10,907	5,698	3,818	11,277	6,796	6,673	10,608	8,536	10,417	7,002	26,793	5,587	7,863	105,603	100,282	100,282	
South Atlantic.....	8,509	16,446	8,967	13,753	15,096	12,191	11,327	19,003	17,967	17,873	11,821	20,295	14,214	179,633	103,661	103,661	
East South Central.....	2,182	10,040	3,668	1,853	3,036	3,940	8,438	2,281	6,903	8,236	9,436	3,728	4,401	62,520	71,114	71,114	
West South Central.....	6,945	13,038	11,239	8,599	17,522	9,257	12,641	13,942	14,980	22,370	14,177	11,732	7,273	146,608	135,620	135,620	
Mountain.....	8,946	2,515	3,721	5,605	3,756	4,194	1,708	6,663	9,229	2,888	3,269	2,887	1,948	43,266	59,523	59,523	
Pacific.....	13,469	9,607	6,835	12,871	23,445	9,883	13,201	11,007	24,252	19,611	10,311	15,024	13,567	170,721	122,991	122,991	
<b>Public buildings<sup>1</sup>.....</b>	<b>2,892</b>	<b>2,680</b>	<b>6,741</b>	<b>13,972</b>	<b>9,226</b>	<b>11,719</b>	<b>10,225</b>	<b>11,719</b>	<b>8,087</b>	<b>7,229</b>	<b>15,506</b>	<b>35,215</b>	<b>6,915</b>	<b>6,003</b>	<b>134,894</b>	<b>153,103</b>	<b>153,103</b>
New England.....	0	410	49	38	806	0	70	30	33	216	481	128	542	2,884	4,863	4,863	
Middle Atlantic.....	63	397	1,195	602	2,495	247	611	557	688	1,211	20,397	992	734	40,178	36,154	36,154	
East North Central.....	5,294	241	180	3,997	527	642	329	742	382	1,561	3,411	694	557	9,513	8,157	8,157	
West North Central.....	12	0	219	45	1,621	0	111	30	711	108	1,079	262	425	4,806	9,590	9,590	
South Atlantic.....	382	381	163	653	826	92	854	372	3,869	952	4,496	176	1,337	15,008	80,313	80,313	
East South Central.....	0	66	0	0	366	38	7,965	0	171	0	318	92	331	9,279	6,257	6,257	
West South Central.....	6	620	769	6,195	363	178	829	2,566	185	873	1,859	145	968	8,268	5,041	5,041	
Mountain.....	1,165	102	66	431	685	26	494	186	247	0	1,159	235	70	2,240	3,436	3,436	
Pacific.....	716	553	4,118	1,928	1,884	18,011	750	604	925	10,885	2,166	2,901	1,130	41,928	27,322	27,322	
<b>Public works and utility buildings<sup>1</sup>.....</b>	<b>10,629</b>	<b>8,777</b>	<b>7,508</b>	<b>9,807</b>	<b>17,939</b>	<b>17,119</b>	<b>14,235</b>	<b>7,432</b>	<b>9,954</b>	<b>11,318</b>	<b>6,403</b>	<b>6,881</b>	<b>5,404</b>	<b>106,164</b>	<b>148,373</b>	<b>148,373</b>	
New England.....	2,478	1,367	1,000	223	279	119	161	941	2,799	491	248	49	990	8,476	16,012	16,012	
Middle Atlantic.....	679	1,554	313	66	5,308	1,222	554	759	1,263	2,908	323	1,383	1,333	16,808	27,651	27,651	
East North Central.....	1,065	1,259	1,562	4,576	3,200	206	10,279	607	1,830	1,759	1,111	2,348	424	26,285	22,302	22,302	
West North Central.....	1,534	247	1,014	730	323	1,534	266	2,233	606	622	1,267	318	790	9,314	11,337	11,337	
South Atlantic.....	659	465	299	842	1,786	340	835	105	240	1,281	623	592	540	7,636	23,281	23,281	
East South Central.....	549	10	181	11	647	7	70	370	225	494	257	221	80	3,516	7,223	7,223	
West South Central.....	829	1,289	1,866	903	4,310	254	433	543	170	147	759	1,239	812	13,646	11,944	11,944	
Mountain.....	68	0	485	38	0	125	180	338	361	370	474	41	406	2,702	2,866	2,866	
Pacific.....	2,749	2,566	1,458	1,968	1,096	3,211	1,457	1,536	2,490	3,246	1,339	498	480	19,597	26,059	26,059	
<b>All other buildings<sup>1</sup>.....</b>	<b>15,987</b>	<b>12,406</b>	<b>10,171</b>	<b>12,081</b>	<b>9,270</b>	<b>16,036</b>	<b>21,807</b>	<b>19,247</b>	<b>27,416</b>	<b>24,236</b>	<b>18,152</b>	<b>22,890</b>	<b>17,023</b>	<b>207,247</b>	<b>131,821</b>	<b>131,821</b>	
New England.....	757	1,506	371	364	439	763	1,085	952	978	917	778	1,068	1,124	9,106	7,819	7,819	
Middle Atlantic.....	1,556	1,183	630	1,260	777												



TABLE F-5: Number and Construction Cost of New Permanent Nonfarm Dwelling Units Started, by Urban or Rural Location, and by Source of Funds<sup>1</sup>

Period	Number of new dwelling units started									Estimated construction cost (in thousands) <sup>2</sup>		
	All units			Privately financed			Publicly financed			Total	Privately financed	Publicly financed
	Total non-farm	Urban	Rural non-farm	Total non-farm	Urban	Rural non-farm	Total non-farm	Urban	Rural non-farm			
1925.....	937,000	752,000	185,000	937,000	752,000	185,000	0	0	0	\$4,475,000	\$4,475,000	0
1933 <sup>3</sup> .....	93,000	45,000	48,000	93,000	45,000	48,000	0	0	0	285,446	285,446	0
1941 <sup>4</sup> .....	706,100	434,300	271,800	619,500	369,500	250,000	86,000	64,800	21,800	2,825,895	2,530,765	\$295,130
1944 <sup>5</sup> .....	141,800	96,200	45,600	138,700	93,200	45,500	3,100	3,000	100	495,054	493,231	11,823
1946.....	473,500	403,700	69,800	462,500	395,700	66,800	8,000	8,000	0	3,766,767	3,713,776	52,991
1947.....	849,000	674,800	269,200	845,600	676,400	369,200	3,400	3,400	0	5,642,798	5,617,425	25,373
1948.....	931,600	624,900	406,700	913,500	610,000	403,500	18,100	14,900	3,200	7,203,119	7,028,098	174,130
1949.....	1,025,100	788,800	436,300	988,800	756,600	432,200	36,300	32,200	4,100	7,702,971	7,574,209	128,762
1950 <sup>6</sup> .....	1,396,000	827,800	568,200	1,352,200	785,600	566,600	43,800	42,200	1,600	11,788,866	11,418,371	370,224
1940: First quarter.....	169,800	94,200	75,600	159,400	84,100	75,300	10,400	10,100	300	1,287,226	1,189,640	97,586
January.....	50,000	29,500	20,500	46,300	25,800	20,500	3,700	3,700	(7)	374,020	340,973	33,047
February.....	50,400	28,000	22,400	47,800	25,500	22,500	2,600	2,500	100	282,778	257,270	25,508
March.....	68,400	36,700	31,700	65,300	32,800	32,500	4,100	3,900	200	430,436	401,307	29,033
Second quarter.....	279,200	157,300	121,900	267,200	147,800	119,400	12,000	9,500	2,500	2,130,637	2,007,563	113,074
April.....	88,300	49,500	38,800	85,000	46,700	38,300	3,300	2,800	500	666,969	637,170	29,799
May.....	95,400	53,900	41,500	91,200	50,600	40,600	4,200	3,300	900	733,967	692,063	41,904
June.....	95,500	53,900	41,600	91,000	50,500	40,500	4,500	3,400	1,100	718,701	678,330	41,371
Third quarter.....	298,000	171,600	126,400	289,900	164,500	125,400	8,100	7,100	1,000	2,222,103	2,153,937	68,166
July.....	96,100	53,300	42,800	92,700	50,100	42,600	3,400	3,200	200	710,341	682,863	27,478
August.....	99,000	55,900	43,100	96,600	54,300	42,300	2,400	1,600	800	743,399	722,308	21,091
September.....	102,900	62,400	46,500	100,600	60,100	49,500	2,300	2,300	(7)	768,373	748,806	19,567
Fourth quarter.....	278,100	163,700	112,400	272,300	160,200	112,100	5,800	5,600	300	2,073,000	2,023,129	49,874
October.....	104,300	60,000	44,300	101,900	57,700	44,200	2,400	2,300	100	776,674	756,712	19,962
November.....	95,500	56,700	38,800	93,400	54,700	38,700	2,100	2,000	100	723,067	704,220	18,877
December.....	78,300	46,000	29,300	77,000	47,800	29,200	1,300	1,200	100	573,232	562,197	11,035
1950: First quarter.....	278,900	167,800	111,100	276,100	165,600	110,500	2,800	2,200	600	2,162,425	2,138,565	23,860
January.....	78,700	46,200	30,500	77,800	47,300	30,500	900	900	0	589,997	581,497	8,500
February.....	82,900	51,000	31,900	82,300	50,800	31,500	600	500	400	637,753	632,090	5,663
March.....	117,300	68,600	48,700	116,000	67,800	48,000	1,300	1,100	200	954,675	924,378	30,297
Second quarter.....	428,800	247,000	179,500	420,400	241,200	179,200	6,400	5,800	600	3,564,856	3,511,204	53,652
April.....	133,400	78,800	54,600	131,300	77,000	54,300	2,100	1,800	300	1,093,726	1,075,644	18,082
May.....	149,100	85,500	63,600	145,700	82,200	63,500	3,400	3,300	100	1,232,976	1,204,978	27,998
June.....	144,300	82,700	61,600	143,400	82,000	61,400	900	700	200	1,238,154	1,220,382	17,772
Third quarter.....	408,900	238,200	168,700	393,600	228,200	168,400	13,300	13,000	300	3,564,953	3,446,722	118,231
July.....	144,400	84,200	60,200	139,700	79,500	60,200	4,700	4,700	(7)	1,253,340	1,210,745	42,595
August.....	141,900	83,600	58,300	137,800	79,600	58,200	4,100	4,000	100	1,266,198	1,230,238	35,960
September.....	120,600	70,400	50,200	116,100	66,100	50,000	4,500	4,500	200	1,045,415	1,005,739	39,676
Fourth quarter.....	283,400	174,800	108,600	282,100	153,600	108,500	21,300	21,200	100	2,496,361	2,321,880	174,481
October.....	102,500	59,400	43,100	100,800	57,700	43,100	1,700	1,700	(7)	915,895	902,190	13,705
November.....	87,300	53,100	34,200	82,700	48,500	34,200	4,600	4,600	(7)	782,625	724,876	57,749
December.....	93,600	62,300	31,300	78,600	47,400	31,200	15,000	14,900	100	817,841	694,814	123,027
1951: First quarter.....	259,500	159,000	100,500	248,300	150,000	100,000	11,200	11,200	0	2,272,767	2,174,259	98,508
January.....	85,900	49,600	36,300	82,200	46,400	35,800	3,700	3,200	500	755,994	721,014	34,980
February.....	80,600	47,000	33,600	76,500	43,100	33,400	4,100	3,900	200	716,367	681,067	34,760
March.....	93,000	(10)	(10)	89,600	(10)	(10)	3,800	(10)	(10)	806,806	771,638	35,168
Second quarter.....	88,000	(10)	(10)	84,500	(10)	(10)	3,800	(10)	(10)	781,133	751,343	29,790

<sup>1</sup> The estimates shown here do not include temporary units, conversions, dormitory accommodations, trailers, or military barracks. They do include prefabricated housing units.

These estimates are based on building-permit records, which, beginning with 1945, have been adjusted for lapses of permits and for lag between permit issuance and start of construction. They are based also on reports of Federal construction contract awards and beginning in 1946 on field surveys in non-permit-issuing places. The data in this table refer to nonfarm dwelling units started, and not to urban dwelling units authorized, as shown in table F-3.

All of these estimates contain some error. For example, if the estimate of nonfarm starts is 50,000, the chances are about 19 out of 20 that an actual enumeration would produce a figure between 45,000 and 55,000.

<sup>2</sup> Private construction costs are based on permit valuation, adjusted for understatement of costs shown on permit applications. Public construction costs are based on contract values or estimated construction costs for individual projects.

<sup>3</sup> Depression, low year.

<sup>4</sup> Recovery peak year prior to wartime limitations.

<sup>5</sup> Last full year under wartime control.

<sup>6</sup> Housing peak year.

<sup>7</sup> Less than 50 units.

<sup>8</sup> Preliminary.

<sup>9</sup> Revised.

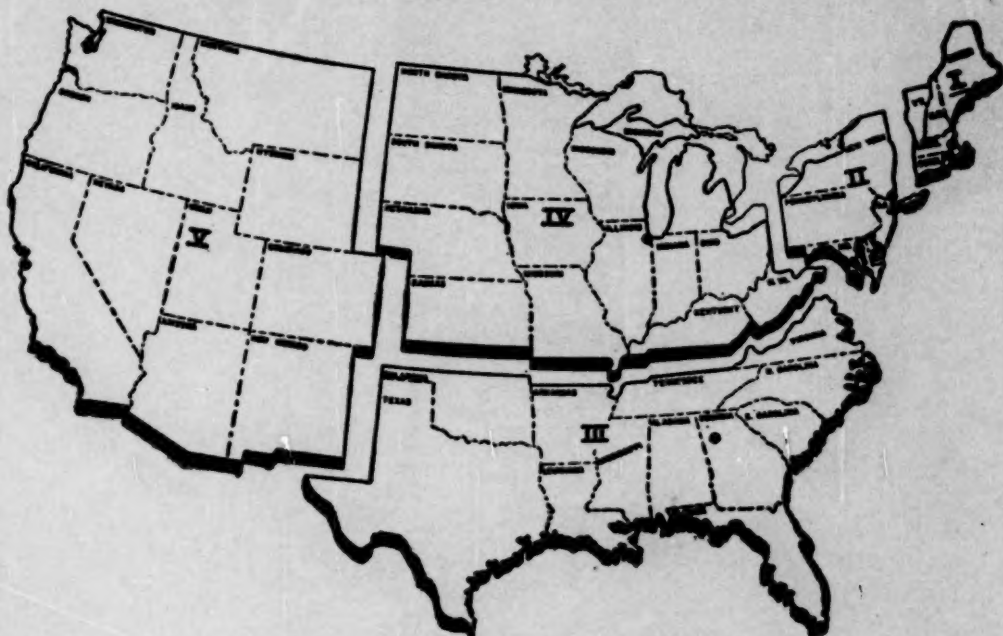
<sup>10</sup> Not available.







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